Vol. III

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1935

No. 636

JAMES WALTER CARTER, PETITIONER,

vs.

CARTER COAL COMPANY, GEORGE L. CARTER, AS VICE-PRESIDENT AND A DIRECTOR OF SAID COMPANY, ET AL.

No. 651

GUY T. HELVERING ET AL., PETITIONERS,

vs.

JAMES WALTER CARTER ET AL.

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA

PETITIONS FOR CERTIORARI FILED DECEMBER 16, 1935.

CERTIORARI GRANTED DECEMBER 20, 1935,
DECEMBER 23, 1935.

SUPREME COURT OF THE UNITED STATES

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GUY T. HELVERING, INDIVIDUALLY AND AS COMMISSIONER OF INTERNAL REVENUE OF THE UNITED STATES, ET AL., PETITIONERS,

vs.

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ON PETITIONS FOR WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA

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[fol. 1032] PLTFF'S EX. 81-P

Production of Oranges, By States, 1933-1934 Season

In Thousands of Boxes

California	28,439
Florida	18,100
Texas	390
Arizona	143
Alabama	3
Mississippi	2
Louisiana	212
Total	47,289

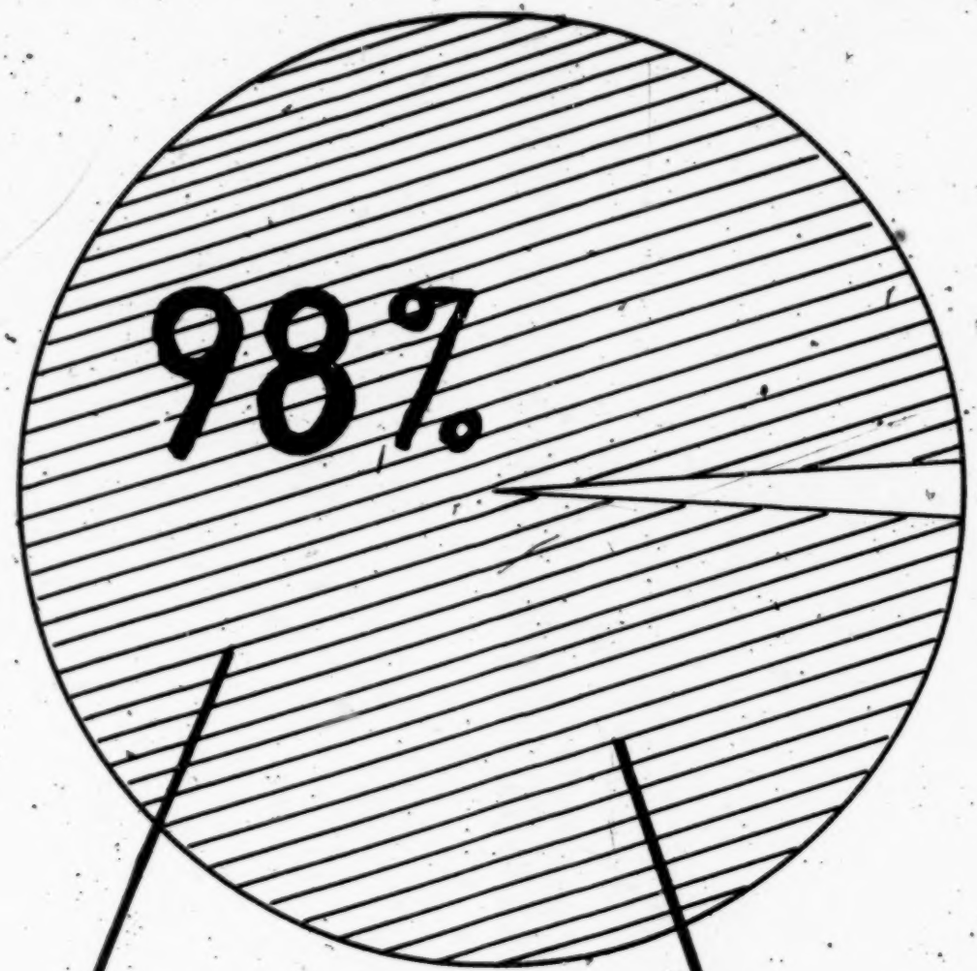
Source: Bureau of Agricultural Economics.

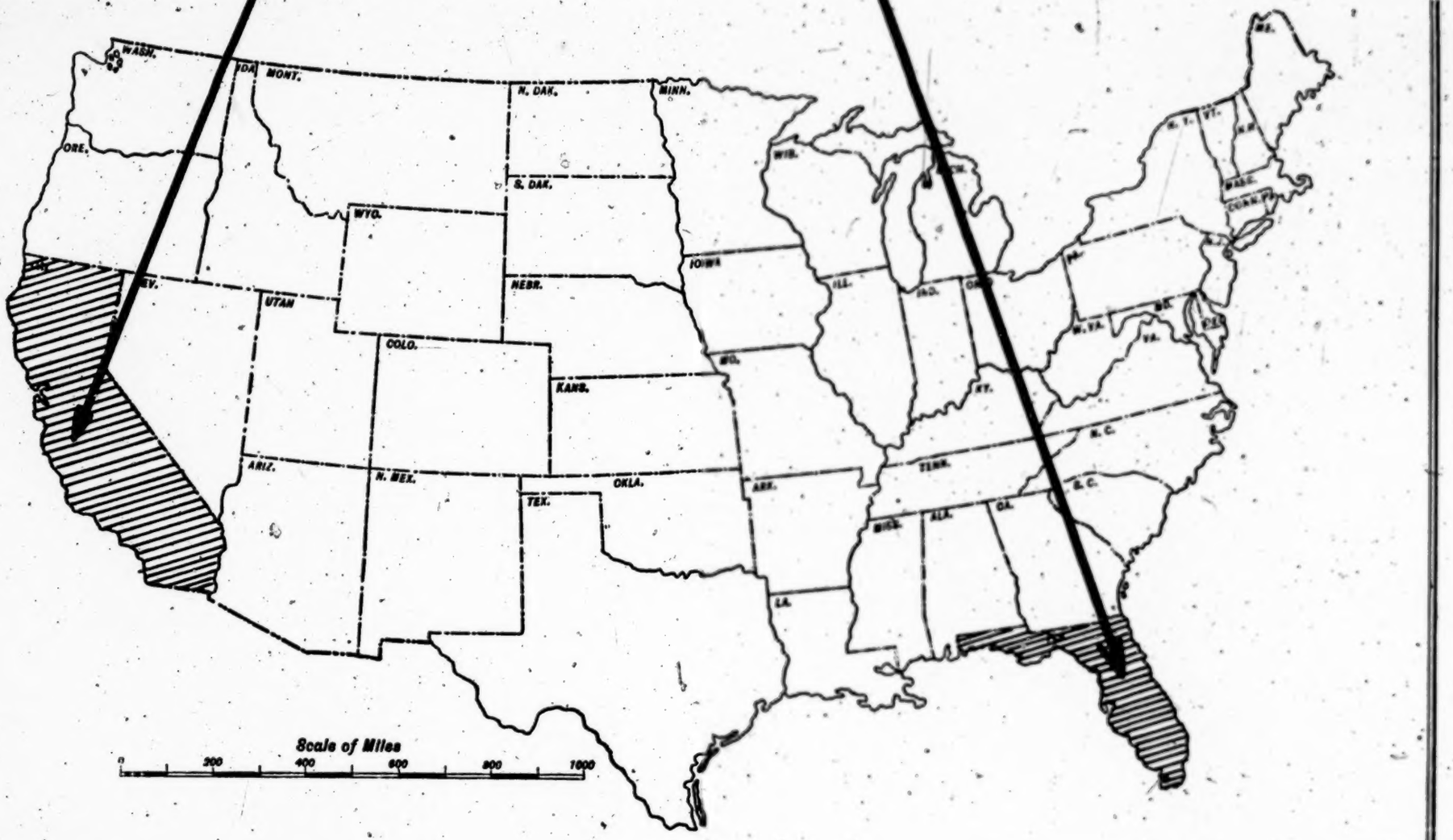
(Here follow 2 maps, Pltff's Exhibits 81-Q and 81-R, side folios 1033 and 1034.)

% OF ORANGES PRODUCED

WITHIN 2 STATES

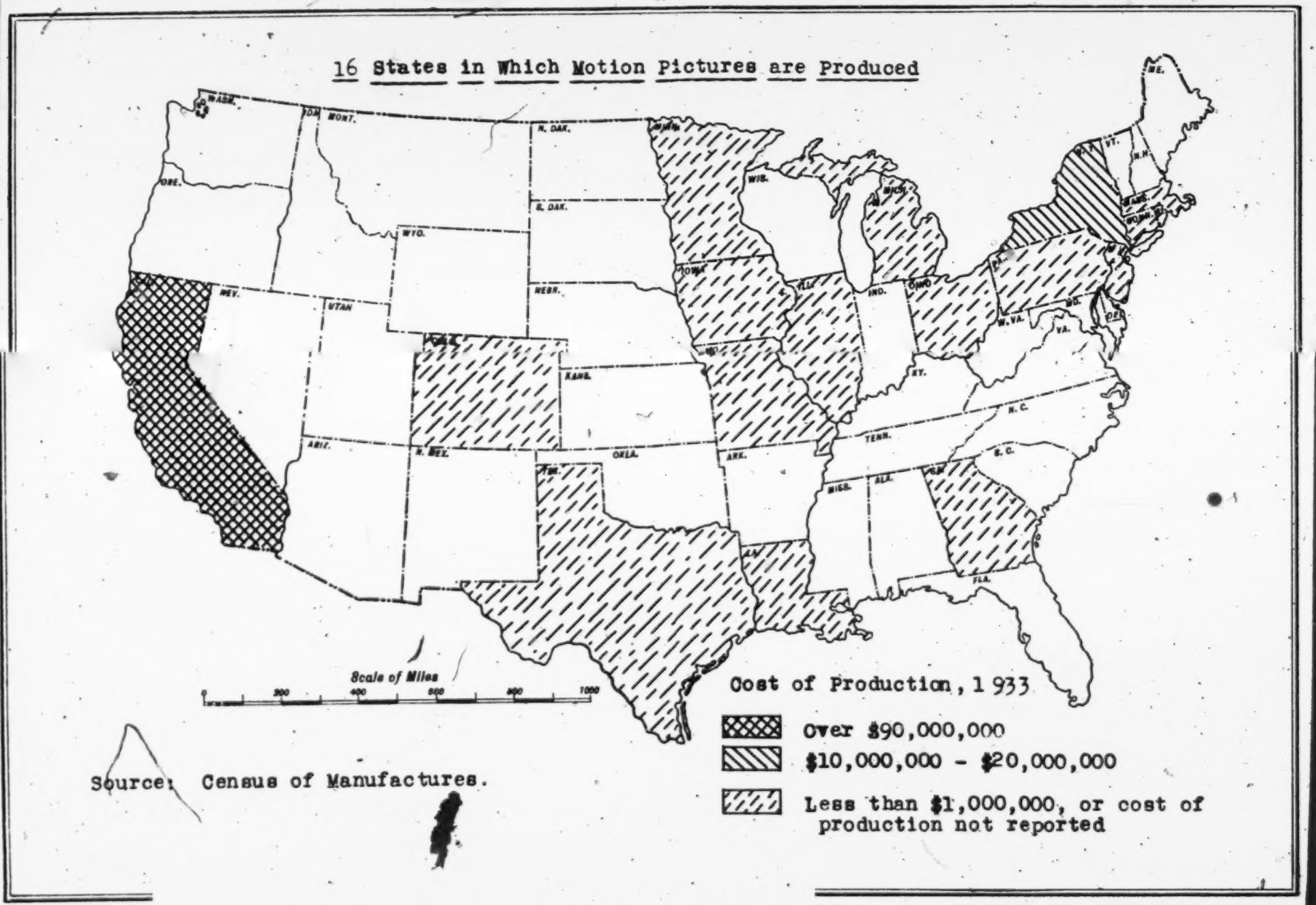
Plaintiff's Ex. 81-Q





SOURCE: Compiled from Bureau of Agricultural Economics reports.

Plaintiff's Ex.81-R



Source: Page 3 of report dated May, 1935, "Motion Pictures" Census of Manufactures, 1933.

[fol. 1035] PLTFF's Ex. 81-S

Cost of Production* of Motion Pictures, by States, 1933

Embraces all processes and activities connected with the production of motion picture films; does not include projection and distribution

California	$97,748,377
Illinois	853,621
New York	15,327,121
Other states**	5,413,747
Total	$119,342,866

* Since the motion picture industry does not sell its products but rents them, it is impossible to determine the actual value of the output of a given year until a long time after its close, so that it is necessary to substitute "cost of production" for "value of products" in collecting the data for this industry.

** States included and numbers of establishments reporting for 1933 are: Colo., 1; Conn., 1; Ga., 1; Iowa, 1; La., 1; Mass., 1; Mich., 2; Minn., 2; Mo., 2; N. J., 3; Ohio, 3; Pa., 1; Tex., 2.

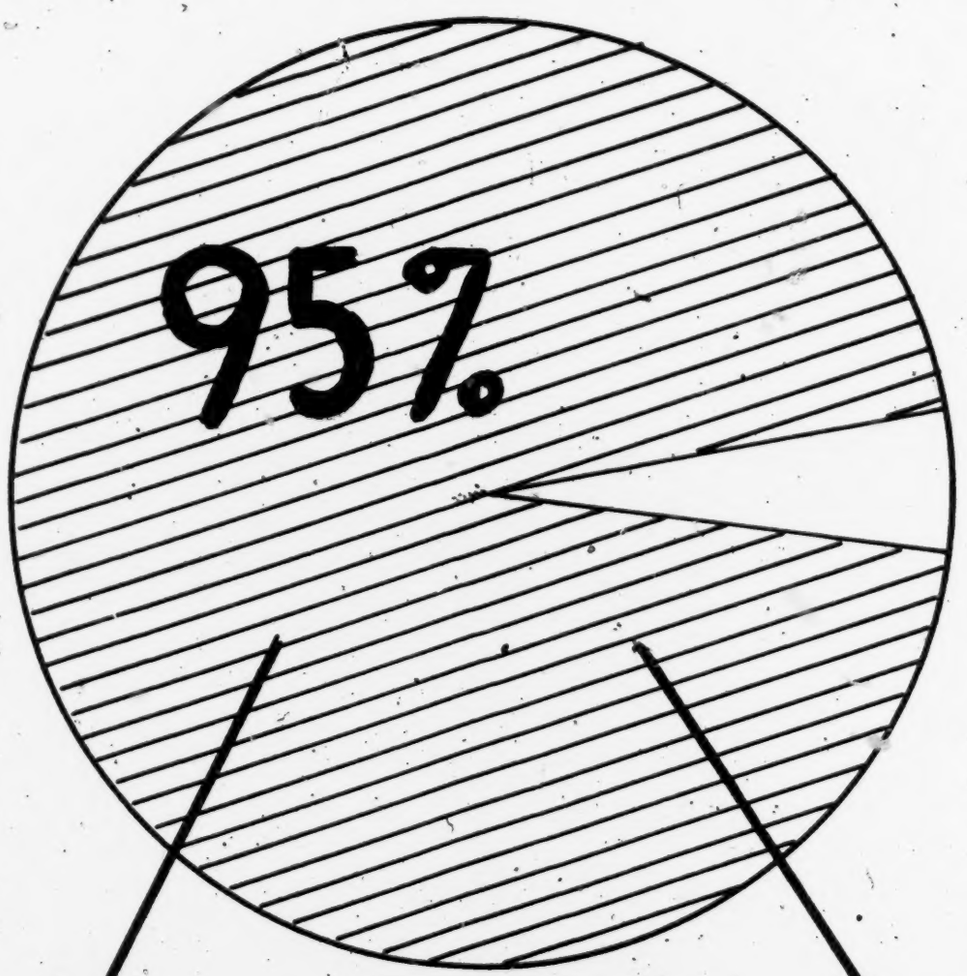
Source: Census of Manufactures.

(Here follow 2 maps, Pltff's Exhibits 81-T and 81-U, side folios 1036 and 1037.)

% Of Cost of Production of Motion Pictures Industry* Accounted For By Establishments In Two States

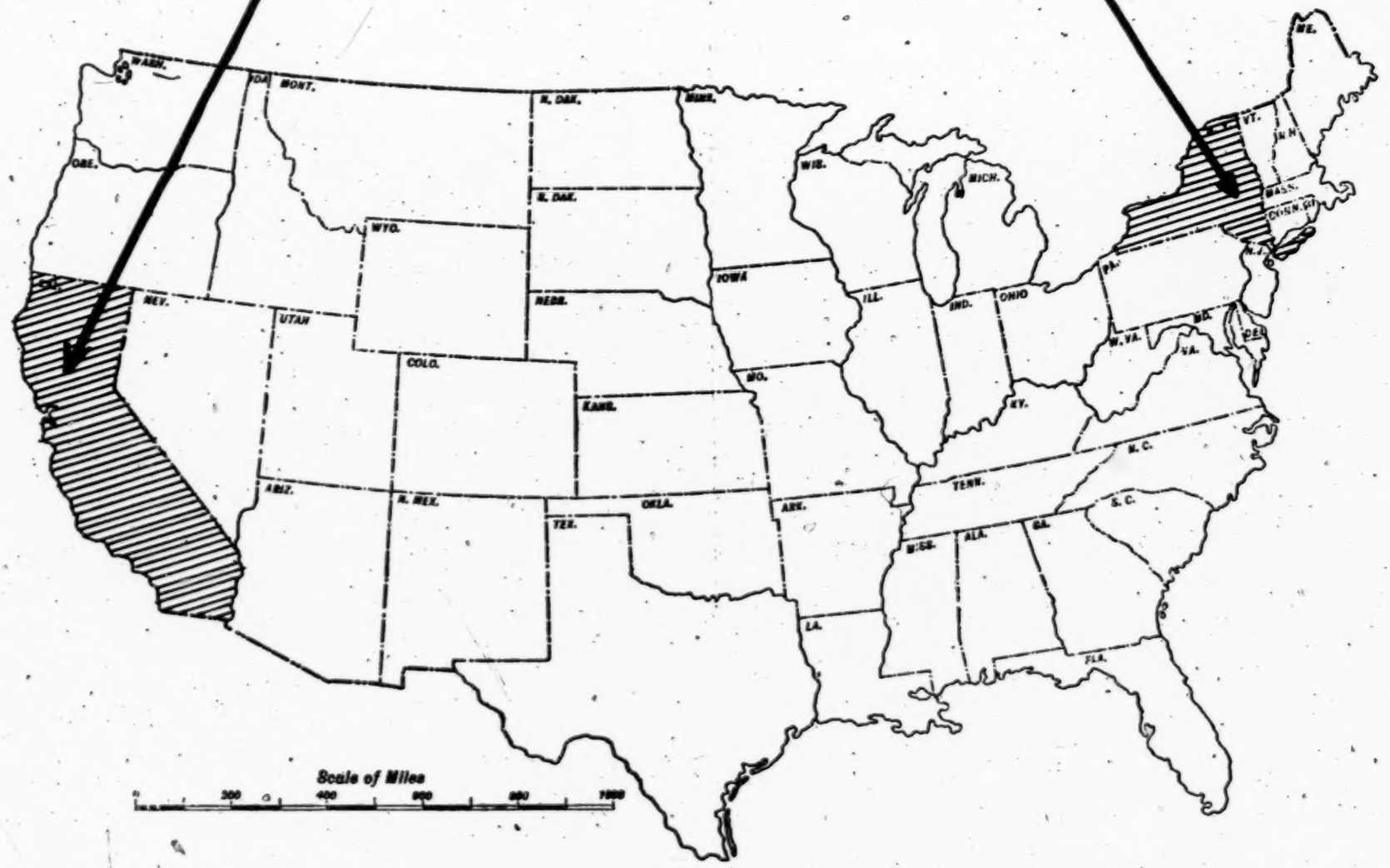
Plaintiff's Ex. 81-T

"Since the motion picture industry does not sell its products but rents them, it is impossible to determine the actual value of the output of a given year until a long time after its close, so that it is necessary to substitute 'cost of production' for 'value of products' in collecting the data for this industry." (Quoted from Census of Manufactures report on Motion Pictures)



* Embraces all processes and activities connected with the production of motion picture

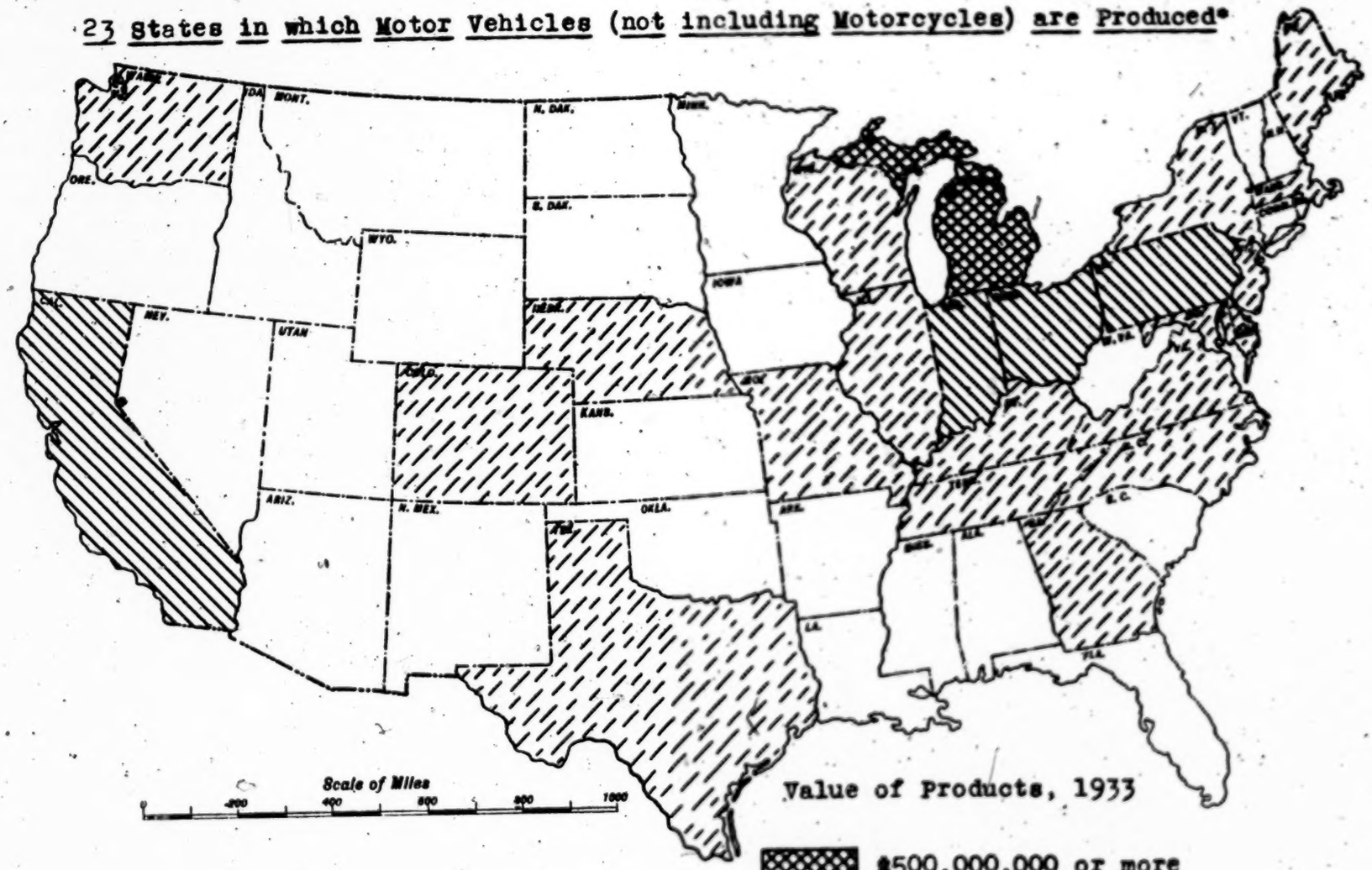
* Embraces all processes and activities connected with the production of moving picture films (does not include distribution and projection).



SOURCE: Compiled from Census of Manufactures report.

Plaintiff's Ex. 81-U

23 States in which Motor Vehicles (not including Motorcycles) are Produced*



Source: Census of Manufactures.

Source: Pages 1 and 3 of report, "Motor Vehicles, Motor Vehicle Bodies and Motor-Vehicle Parts", Census of Manufacturers, 1933.

*Assembling plants are treated as manufacturing establishments by Census of Manufactures

[fol. 1038] PLTFF'S EX. 81-V

Value of Products of Motor Vehicles, Not Including Motorcycles, Industry, by States, 1933

NOTE.—The classification "Motor vehicles, not including motorcycles" applies to all manufacturing establishments whose principal products are motor-propelled vehicles having 4 wheels or more, for use on highways. (The manufacture of motorcycles and bicycles is treated as a separate industry.) Manufacturers of motor-propelled fire-department apparatus, street sweepers, road oilers, etc., are also classified in this industry.

For census purposes an assembling plant (a plant in which parts made in another plant under the same management are assembled into complete motor vehicles) is treated as a manufacturing establishment. This is necessary in order that each State may be credited with its due share of the industry. As a result, the number of establishments shown, 122, is somewhat in excess of the actual number of manufacturers. The number of such manufacturers reporting at the census for 1933 (counting the General Motors organization as 6) was 90.

	In Thousands of Dollars
California	$46,144
Michigan	588,302
Indiana	45,883
Pennsylvania	36,187
Ohio	49,679
Other states*	330,752
Total	$1,096,946

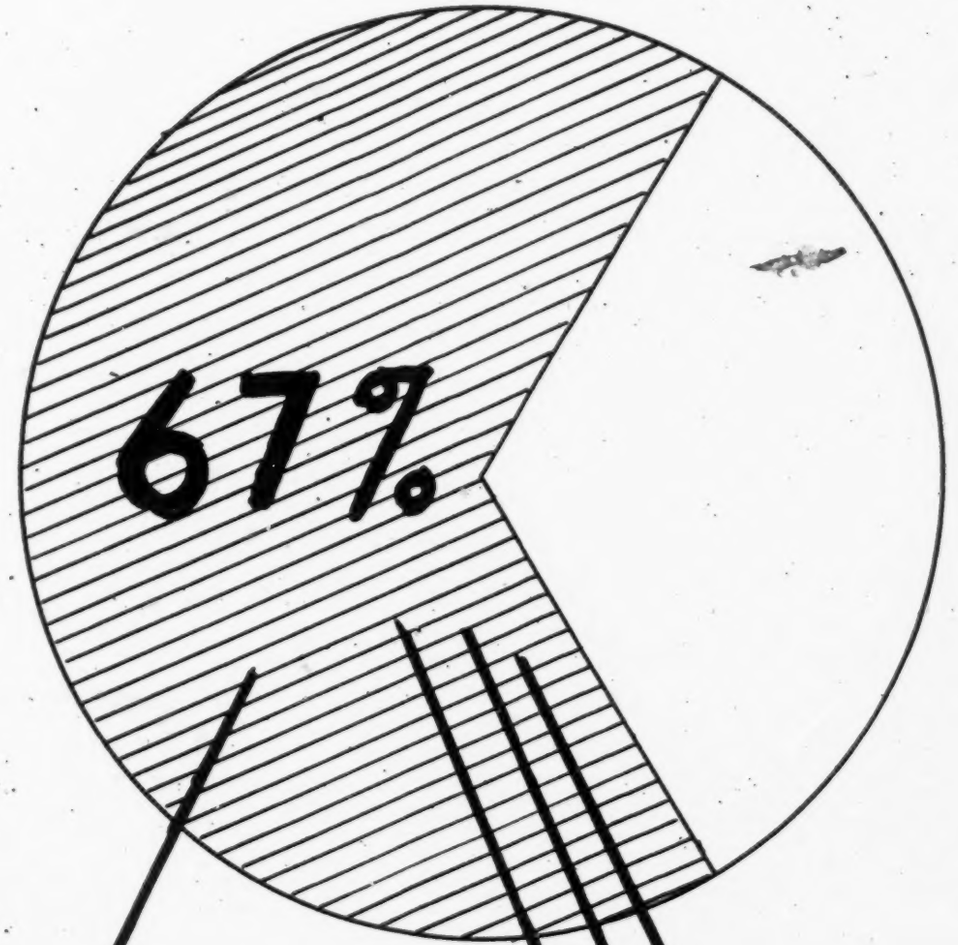
* States included and numbers of establishments reporting for 1933 are: Colo., 3; Del., 1; Ga., 1; Ill., 10; Ky., 1; Me., 1; Md., 1; Mass., 4; Mo., 4; Nebr., 1; N. J., 4; N. Y., 14; N. C., 1; Tenn., 1; Tex., 2; Va., 1; Wash., 1; Wis., 7.

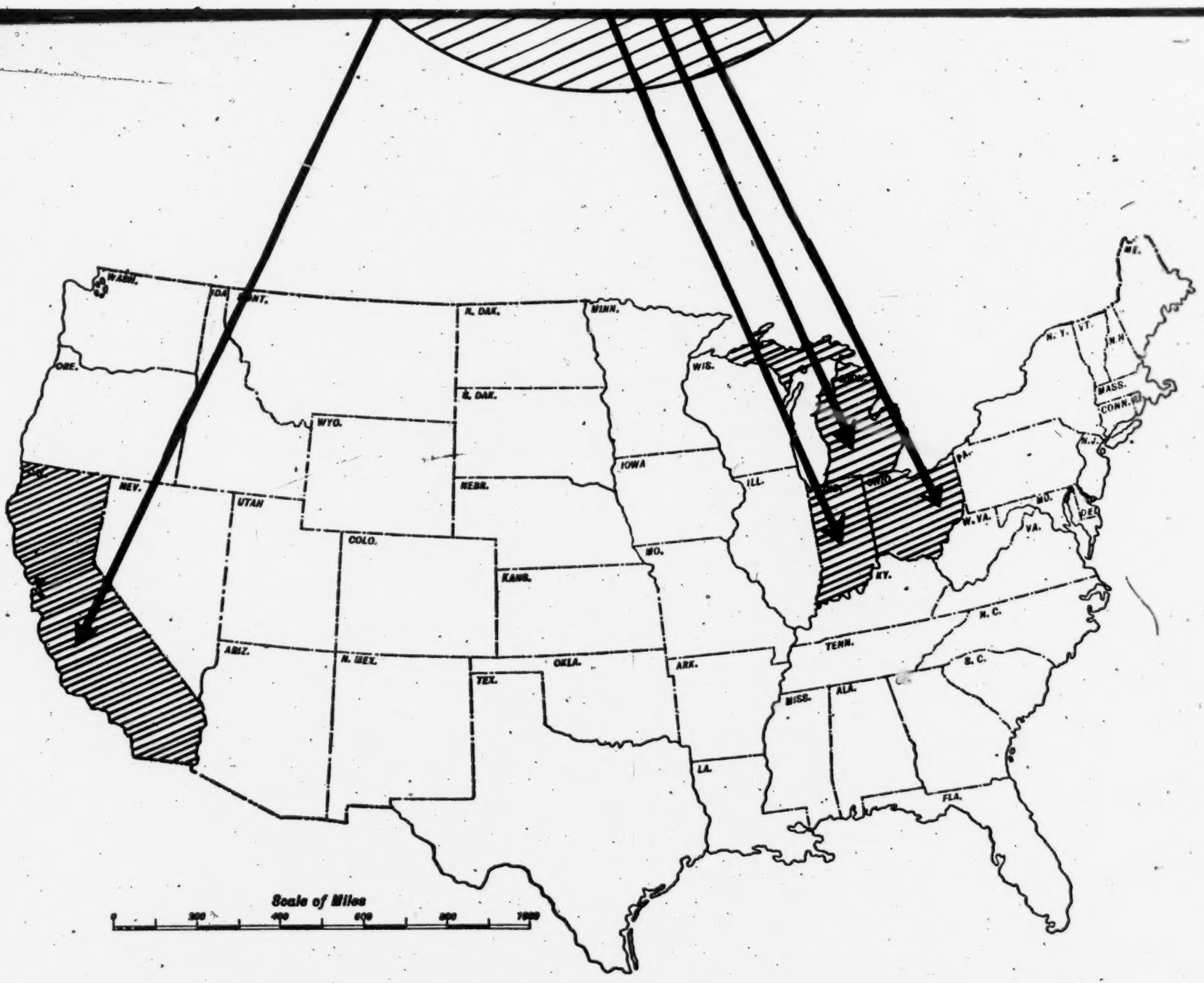
Source: Census of Manufactures.

(Here follows 1 map, Pltff's Exhibit 81-W, side folio 1039)

Plaintiff's Ex. 81-W

% OF VALUE OF PRODUCTS OF MOTOR VEHICLE INDUSTRY (NOT INCLUDING MOTORCYCLES OR PARTS) PRODUCED WITHIN 4 STATES





SOURCE: Compiled from Census of Manufactures report.

[fol. 1040] PLAINTIFF'S EXHIBIT 81-X

Percentage of Total United States Production of Specified Commodities Produced Within Specified Number of States, 1933

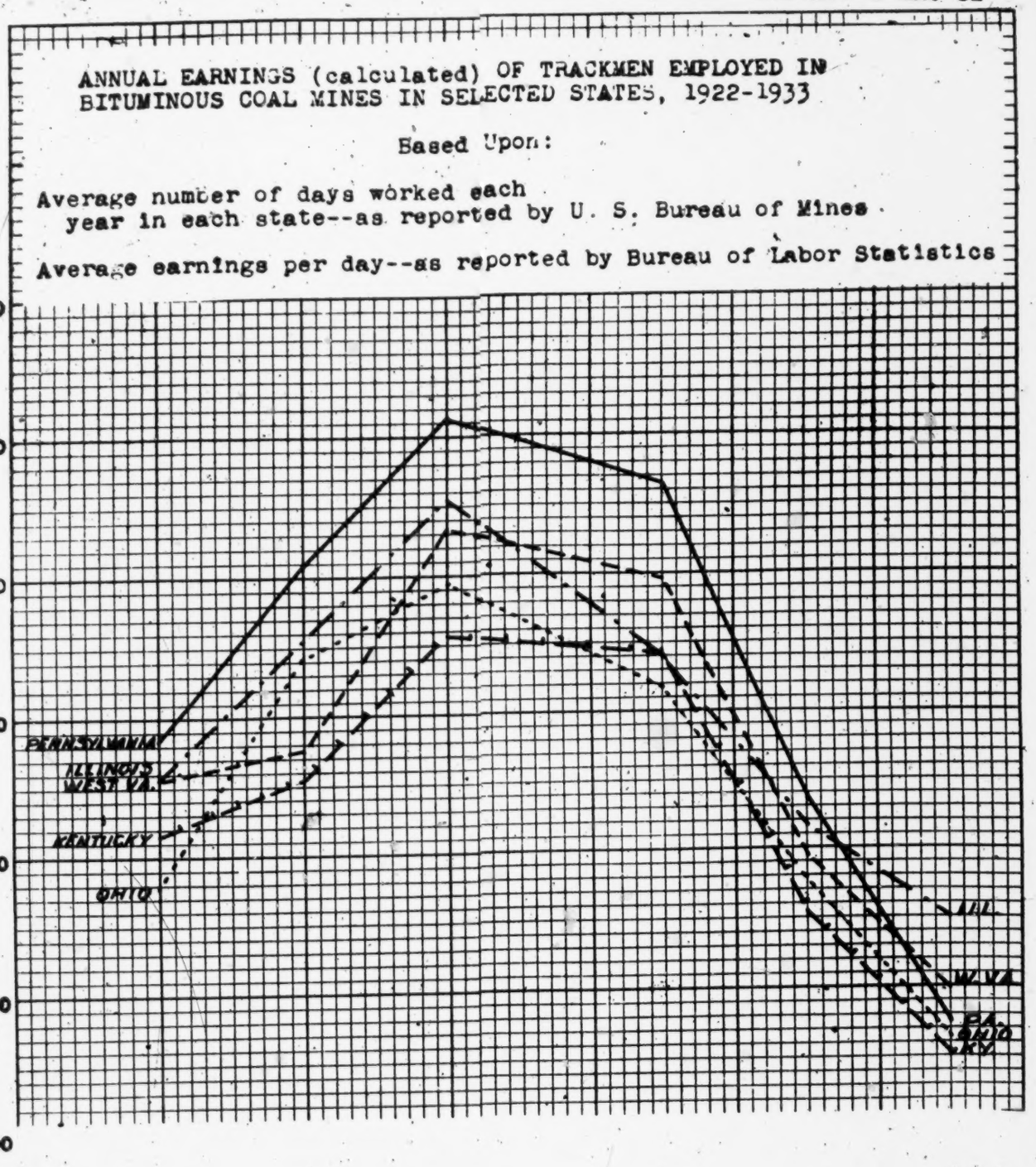
Bituminous Coal	74% produced within 4 states	(West Virginia, Pennsylvania, Illinois and Kentucky)
Anthracite Coal	99% produced within 1 state	(Pennsylvania)
Iron Ore	94% produced within 3 states	(Minnesota, Michigan and Alabama)
Copper	79% produced within 4 states	(Montana, Utah, Arizona and Michigan)
Oranges*	98% produced within 2 states	(California and Florida)
Salt	80% produced within 4 states	(Kansas, Michigan, Ohio and New York)
Motion pictures	95% produced within 2 states	(California and New York)
Motor Vehicles** (not including motorcycles)	67% produced within 4 states	(Michigan, California, Ohio and Indiana)

*1933–1934 Season.
**Includes value of product of assembly plants.

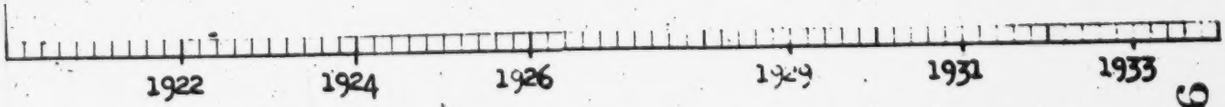
Source: Data on bituminous coal, anthracite coal, iron ore, copper, and salt from Bureau of Mines; data on production of oranges from Bureau of Agricultural Economics; data on motion pictures and motor vehicles (not including motorcycles) from Census of Manufactures.

(Here follow 2 charts, Plaintiff's Exhibits 82 and 82-A, side folios 1041 and 1042.)

Plaintiff's Ex. 82



	1922	1924	1926	1929	1931	1933
Illinois	$914.40	$1,108.52	$1,307.20	$1,079.70	$832.32	$700.77
Ohio	757.00	1,082.51	1,189.32	1,037.16	758.64	530.66
Pennsylvania	968.66	1,218.60	1,422.40	1,327.10	875.42	550.80
West Virginia	912.34	951.86	1,264.64	1,190.54	792.00	599.76
Kentucky	831.60	908.28	1,113.20	1,081.14	709.14	503.20



984A

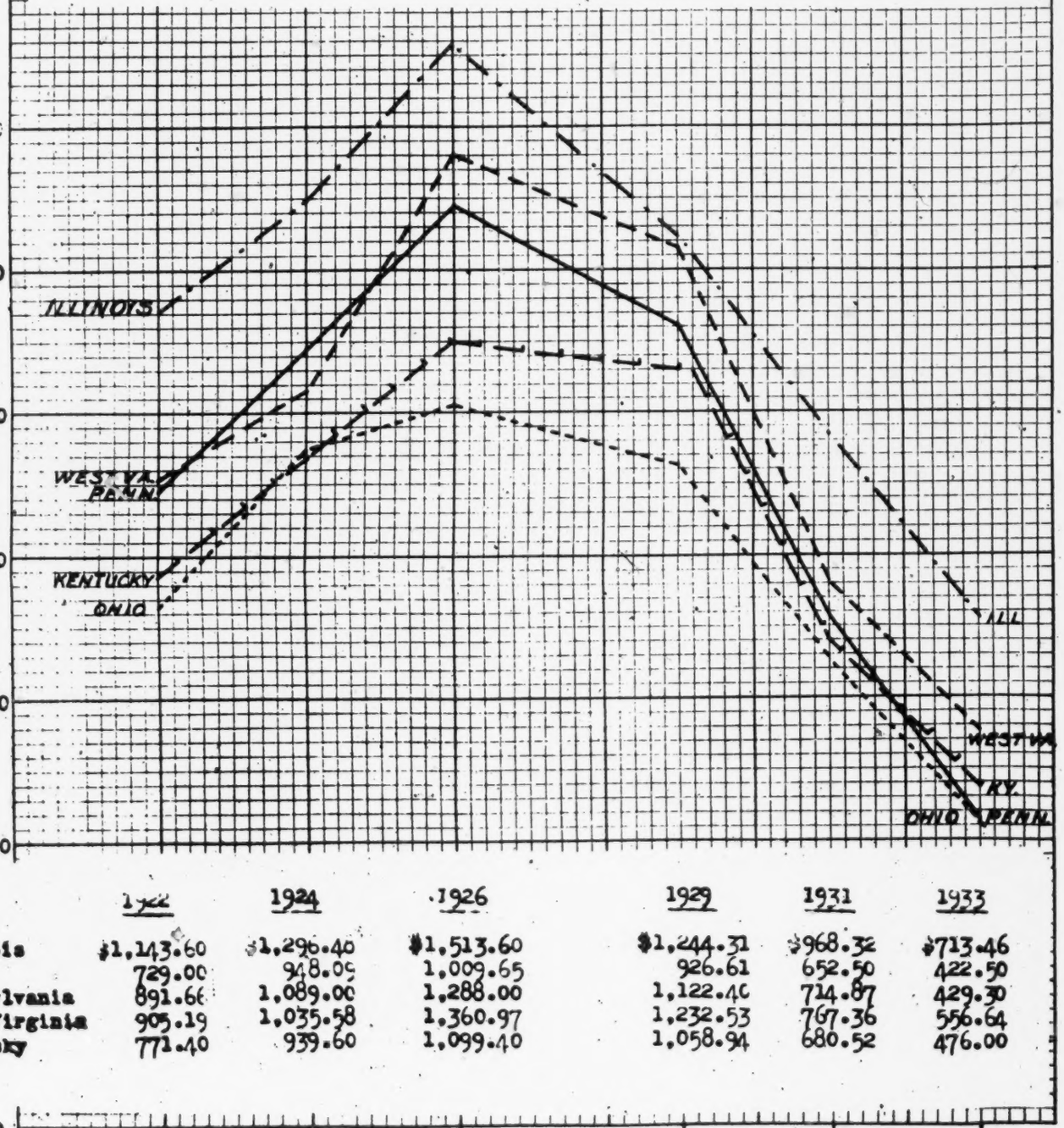
Plaintiff's Ex. 82-A

ANNUAL EARNINGS (calculated) OF HAND LOADERS EMPLOYED IN BITUMINOUS COAL MINES IN SELECTED STATES, 1922-1933

Based Upon:

Average number of days worked each year in each state--as reported by U. S. Bureau of Mines

Average earnings per day--as reported by Bureau of Labor Statistics



	1922	1924	1926	1929	1931	1933
Illinois	$1,143.60	$1,296.40	$1,513.60	$1,244.31	$968.32	$713.46
Ohio	729.00	948.09	1,009.65	926.61	652.50	422.50
Pennsylvania	891.66	1,089.00	1,288.00	1,122.40	714.87	429.30
West Virginia	905.19	1,035.58	1,360.97	1,232.53	767.36	556.64
Kentucky	771.40	939.60	1,099.40	1,058.94	680.52	476.00

[fol. 1043] PLAINTIFF'S EXHIBIT 82-B

Average Number of Days Worked per Year, Average Earnings per Day and Calculated Earnings per Year of Wage Earners in Specified Occupations, 1922–1933

State	Year	Average Number of Days Worked	Average Earnings			
			Hand Loaders		Trackmen	
			Per Day	Per Year*	Per Day	Per Year*
Illinois	1922	120	$9.53	$1,143.60	$7.62	$914.40
	1924	148	8.76	1,296.48	7.49	1,108.52
	1926	172	8.80	1,513.60	7.60	1,307.20
	1929	177	7.03	1,244.31	6.10	1,079.70
	1931	136	7.12	968.32	6.12	832.32
	1933	141	5.06	713.46	4.97	700.77
Ohio	1922	100	7.29	729.00	7.57	757.00
	1924	143	6.63	948.09	7.57	1,082.51
	1926	159	6.35	1,009.65	7.48	1,189.32
	1929	201	4.61	926.61	5.16	1,037.16
	1931	174	3.75	652.50	4.36	758.64
	1933	169	2.50	422.50	3.14	530.66
Pennsylvania (bituminous)	1922	154	5.79	891.66	6.29	968.66
	1924	180	6.05	1,089.00	6.77	1,218.60
	1926	224	5.75	1,288.00	6.35	1,422.40
	1929	230	4.88	1,122.40	5.77	1,327.10
	1931	169	4.23	714.87	5.18	875.42
	1933	162	2.65	429.30	3.40	550.80
Kentucky	1922	140	5.51	771.40	5.94	831.60
	1924	174	5.40	939.60	5.22	908.28
	1926	230	4.78	1,099.40	4.84	1,113.20
	1929	222	4.77	1,058.94	4.87	1,081.14
	1931	159	4.28	680.52	4.46	709.14
	1933	170	2.80	476.00	2.96	503.20
West Virginia	1922	143	6.33	905.19	6.38	912.34
	1924	182	5.69	1,035.58	5.23	951.86
	1926	247	5.51	1,360.97	5.12	1,264.64
	1929	247	4.99	1,232.53	4.82	1,190.54
	1931	176	4.36	767.36	4.50	792.00
	1933	196	2.84	556.64	3.06	599.76

*Calculated by multiplying average earnings per day by average number of days worked.

Source: Average number of days worked—United States Bureau of Mines. Average earnings per day—Bureau of Labor Statistics.

(Here follows Plaintiff's Exhibit 86, side folio 1044.)

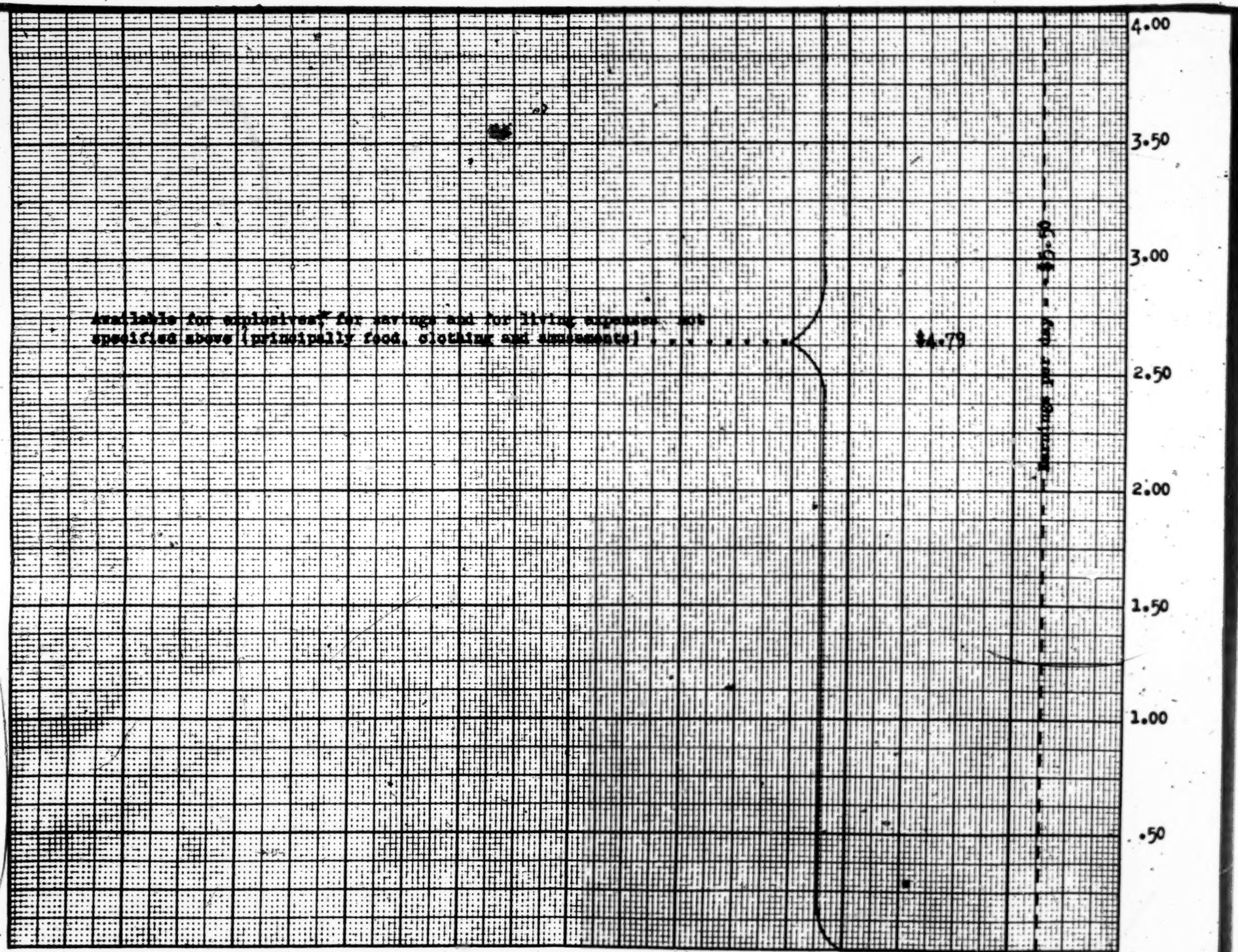
Plaintiff's Ex. 86

Average Earnings and Specified Living Expenses per Man per Day of Work for the 506 Workers at Ohio No. 1 Mine of Carter Coal Company, July, 1935

Average earnings per man per day of work were $5.50

Occupational (smithing and safety lamps, but not explosives)	$.11
Rent	.17
Group insurance and burial fund	.13
Doctor and hospital	.11
Heat and light	.08
Union dues, union fees and check weighman	.09
Miscellaneous: bath house, garbage and mine checks	.02

$5.50
5.00
4.50
4.00



*Cost of explosives approximately 30¢ per day

[fol. 1045] PLAINTIFF'S EXHIBIT 87

Record of 566 Piece Workers (Coal Loaders) at the Olga #1 Mine of the Carter Coal Company for the Month of July, 1935.

Men were offered work on 23 days

(Agreement with representatives of employees provides that no mine worker shall work more than 5 days in any one week)

Number of days worked	Number working each number of days	Average earnings per man per month
1	5	$3.98
2	1	8.82
3	4	9.81
4	6	15.89
5	4	27.71
6	6	27.78
7	8	31.77
8	1	50.82
9	8	47.37
10	11	49.61
11	11	57.60
12	12	51.49
13	8	66.58
14	18	77.13
15	23	72.10
16	32	85.05
17	41	91.70
18	48	98.05
19	47	103.21
20	63	111.72
21	85	117.56
22	77	126.85
23	47	131.12
Total	566	$98.05

[fol. 1046] P.'s No. 88

(To be substituted for that previously submitted)

Carter Coal Company

Average Annual Earnings of Employees Other Than Those on Salaries

**1922	1,043.69
1923	1,457.42
1924	1,328.67
1925	1,349.31
1926	1,519.16
1927	1,415.33
1928	1,292.12
1929	1,359.30
1930	1,193.28
1931	1,009.34
1932	569.44
1933	833.33
1934	1,048.08

Compiled by Local Auditor, Carter Coal Company, Coalwood, West Virginia, November 15, 1935.
(Telephoned to Washington.)

** Ten months only.

T. D. 4596.

Regulations relating to the tax on the sale or other disposal of bituminous coal under section 3 of the Bituminous Coal Conservation Act of 1935 (Public, No. 402, Seventy-fourth Congress) (approved August 30, 1935).

TREASURY DEPARTMENT,
OFFICE OF COMMISSIONER OF INTERNAL REVENUE,
Washington, D. C.

To Collectors of Internal Revenue and Others Concerned:

Section 3 of the Bituminous Coal Conservation Act approved August 30, 1935, provides:

There is hereby imposed upon the sale or other disposal of all bituminous coal produced within the United States an excise tax of 15 per centum on the sale price at the mine, or in the case of captive coal the fair market value of such coal at the mine, such tax, subject to the later provisions of this section, to be payable to the United States by the producers of such coal, and to be payable monthly for each calendar month, on or before the first business day of the second succeeding month, and under such regulations, and in such manner, as shall be prescribed by the Commissioner of Internal Revenue: *Provided*, That in the case of captive coal produced as aforesaid, the Commissioner of Internal Revenue shall fix a price therefor at the current market price for the comparable kind, quality, and size of coals in the locality where the same is produced: *Provided further*, That any such coal producer who has filed with the National Bituminous Coal Commission his acceptance of the code provided for in section 4 of this Act, and who acts in compliance with the provisions of such code, shall be entitled to a drawback in the form of a credit upon the amount of such tax payable hereunder, equivalent to 90 per centum of the amount of such tax, to be allowed and deducted therefrom at the time settlement therefor is required, in such manner as shall be prescribed by the Commissioner of Internal Revenue. Such right or benefit of drawback shall apply to all coal sold or disposed of from and after the day of the producer's filing with the commission his acceptance of said code in such form of agreement as the commission may prescribe. No producer shall by reason of his acceptance of the code provided for in section 4 or of the drawback of taxes provided in section 3 of this Act be held to be precluded or estopped from contesting the constitutionality of any provision of said code, or its validity as applicable to such producer.

Pursuant to the above-quoted provisions and the provisions of the various internal revenue laws, the following regulations are hereby prescribed, to be in effect until the issuance of more complete regulations under the Act. The sections of law quoted, except as otherwise indicated, are contained in the Bituminous Coal Conservation Act of 1935.

CHAPTER I.

GEOGRAPHICAL SCOPE AND EFFECTIVE PERIOD.

Section 3.

There is hereby imposed upon the sale or other disposal of all bituminous coal produced within the United States an excise tax * * *.

ARTICLE 1. *Geographical scope.*—The tax attaches to all sales or other disposals of bituminous coal produced within the United States, which includes only the States, the Territories of Alaska and Hawaii, and the District of Columbia, regardless of where the sales or other disposals occur.

Section 20.

Section 3 of this Act shall become effective on the 1st day of the third calendar month after the enactment of this Act, unless the commission shall not at that time have formulated the code and forms of acceptance for membership therein, in which event section 3 of this Act shall become effective from and after the date when the commission shall have formulated the code and such forms for acceptance, which date shall be promulgated by Executive order of the President of the United States. * * *

Section 21.

This Act shall cease to be in effect and any agencies established thereunder shall cease to exist on and after four years from the date of the approval of this Act.

ART. 2. *Effective period.*—The tax attaches to any sale or other disposal of bituminous coal by the producer on or after November 1, 1935, and before August 30, 1939.

CHAPTER II.

DEFINITIONS.

Section 19.

The term "bituminous coal" as used in this Act shall include all bituminous, semibituminous, and subbituminous coal and lignite. The term "producer" shall include all persons, firms, associations, corporations, trustees, and receivers engaged in mining bituminous coal. The term "captive coal" shall include all coal produced at a mine for consumption by the producer or by a subsidiary or affiliate thereof, or for use in the production of coke or other forms of manufactured fuel by such producer or subsidiary or affiliate.

ART. 11. *Meaning of terms.*—As used in these regulations—

(*a*) The terms defined in the applicable provisions of law shall have the meaning so assigned to them.

(*b*) The term "Act" means the Bituminous Coal Conservation Act of 1935.

(*c*) The term "tax" means the tax imposed under section 3 of the Act.

(*d*) The term "coal" means bituminous coal as defined in the Act.

(*e*) The term "sale" includes an agreement whereby the seller transfers the property (that is, the title or the substantial incidents of ownership) in goods to the buyer for a consideration called the price, which may consist of money, services, or other goods.

(*f*) The term "disposal" includes consumption or use (whether in the production of coke or fuel, or otherwise) by a producer, or a subsidiary or an affiliate thereof, and any transfer of title by the producer to another (whether by sale, exchange, or otherwise).

(*g*) The term "sale price at the mine" means the amount received or to be received by the producer upon the sale of any quantity of coal, not including the amount of any transportation or delivery charges from the mine where produced.

(*h*) The term "fair market value" in the case of captive coal means the current market price, as fixed by the Commissioner, for the comparable kind, quality, and size of coals in the locality where the same is produced.

(*i*) The term "commission" means the National Bituminous Coal Commission.

(*j*) The term "code" means the bituminous coal code formulated by the commission.

(*k*) The term "code member" means a producer who has accepted and operates under the provisions of the code.

(*l*) The term "taxpayer" means any person subject to the tax imposed by this Act.

(*m*) The term "person" includes a natural person, a corporation, a partnership, a company, a trust or estate, a joint-stock company, an association, or other unincorporated organization or group. It includes a guardian, committee, trustee, executor, administrator, trustee in bankruptcy, receiver, assignee for the benefit of creditors, conservator, or any person acting in a fiduciary capacity.

(*n*) The term "subsidiary or affiliate" includes any person whose relations with the producer, through stock ownership or control, or otherwise, are such that its transactions with the producer are not ordinarily made at arm's length.
(*o*) The term "Secretary" means the Secretary of the Treasury.
(*p*) The term "Commissioner" means the Commissioner of Internal Revenue.
(*q*) The term "collector" means a collector of internal revenue.
(*r*) The terms "includes" and "including" when used in a statement contained in these regulations, shall not be deemed to exclude other things otherwise within the meaning of such statement.

CHAPTER III.

RATE AND MEASURE OF TAX.

Section 3.

There is hereby imposed upon the sale or other disposal of all bituminous coal produced within the United States an excise tax of 15 per centum on the sale price at the mine, or in the case of captive coal the fair market value of such coal at the mine, such tax, * * * to be payable * * * by the producers of such coal, * * *: *Provided*, That in the case of captive coal produced as aforesaid, the Commissioner of Internal Revenue shall fix a price therefor at the current market price for the comparable kind, quality, and size of coals in the locality where the same is produced: * * *

ART. 21. *Rate and measure of tax.*—The rate and measure of the tax is 15 per cent of the sale price at the mine, except that in the case of captive coal and in the case of a disposal other than by sale the rate and measure of the tax is 15 per cent of the fair market value of the coal at the mine at the time of disposal. The fair market value of coal at the mine is the current market price for the comparable kind, quality, and size of coals in the locality where the same is produced.

If, for any reason, a producer's sale price does not properly reflect the price for which a similar quantity and quality of coal is sold at the mine in the ordinary course of trade by producers in the same locality and the sale is not an arm's-length transaction, the tax shall be computed upon the fair market price for such coal. If, through the existence of special arrangements between a producer and purchaser (as in the case of intercompany transfers at cost or at a fictitious price), the price for which coal is sold by the producer does not reflect a fair market price, the sale is regarded as one made otherwise than through an arm's-length transaction. In such case the tax shall be computed upon the fair market price of such coal.

ART. 22. *Liability for tax.*—The tax imposed by section 3 of the Act is payable by the producer of the bituminous coal. For definition of producer, see section 19 of the Act.

ART. 23. *When the tax attaches.*—The tax attaches immediately (1) upon the sale or other disposal by the producer (see article 11 (*e*) and (*f*)) and (2) in the case of captive coal (see section 19 of the Act) when the coal is consumed at the mine or removed or shipped from the mine for consumption by the producer or a subsidiary or affiliate thereof, or is used at the mine or removed or shipped from the mine for use in the manufacture of coke or other form of manufactured fuel by the producer or a subsidiary or affiliate thereof.

CHAPTER IV.

CREDIT OR DRAWBACK ALLOWABLE TO CODE MEMBERS.

Section 3.

* * * *Provided further*, That any such coal producer who has filed with the National Bituminous Coal Commission his acceptance of the code provided for in section 4 of this Act, and who acts in compliance with the provisions of such code, shall be entitled to a drawback in the form of a credit upon the amount of such tax payable hereunder, equivalent to 90 per centum of the amount of such tax, to be allowed and deducted therefrom at the time settlement therefor is required, in such manner as shall be prescribed by the Commissioner of Internal Revenue. Such right or benefit of drawback shall apply

to all coal sold or disposed of from and after the day of the producer's filing with the commission his acceptance of said code in such form of agreement as the commission may prescribe. * * *

Section 5.

* * * * * * *

(b) The membership of any such coal producer in such code and his right to a drawback on the taxes levied under section 3 of this Act, may be revoked by the commission upon written complaint by any party in interest, after a hearing, with thirty days' written notice to the member, upon proof that such member has willfully failed or refused to comply with any duty or requirement imposed upon him by reason of his membership; and in such a hearing any party in interest, including the district boards, other code members, consumers, employees, and the Commissioner of Internal Revenue, shall be entitled to present evidence and be heard: *Provided*, That the commission, in its discretion, may in such case make an order directing the code member to cease and desist from violations of the code and upon failure of the code member to comply with such order the commission may reopen the case upon ten days' notice to the code member affected and proceed in the hearing thereof as above provided.

* * * * * * *

(c) Any producer whose membership in the code and whose right to a drawback on the taxes as provided under this Act has been canceled, shall have the right to have his membership restored upon payment by him of all taxes in full for the time during which it shall be found by the commission that his violation of the code or of any regulation thereunder, the observance of which is required by its terms, shall have continued. In making its findings under this subsection the commission shall state specifically (1) the period of time during which such violation continued, and (2) the amount of taxes required to be paid to bring about reinstatement as a code member.

* * * * * * *

ART. 31.[1] *Producers entitled to credit.*—In order to be entitled to the credit or drawback of 90 per cent of the amount of his tax as provided by section 3 of the Act, a producer must comply with the following conditions: First, file with the National Bituminous Coal Commission his acceptance of the code; second, act in compliance with the provisions of the code; third, show code membership during the taxable period for which the return is made and compliance in the manner required by Form 1 (Coal). See article 51. No credit or drawback is allowable with respect to coal sold or disposed of prior to the date of filing with the commission acceptance of the code.

ART. 32. *When credit is allowed.*—The 90 per cent drawback or credit is deductible from the amount of tax shown on the return, Form 1 (Coal). Such drawback or credit may be disallowed if at any time it appears that the National Bituminous Coal Commission has revoked the code membership of the taxpayer in the manner provided in the Act.

CHAPTER V.

SALES NOT SUBJECT TO TAX.

ART. 41. *Sales to States or political subdivisions thereof.*—The tax will not attach to a sale of bituminous coal by the producer thereof to a State or political subdivision thereof for use in the exercise of an essential governmental function, but a sale of bituminous coal by the producer thereof to a State or a political subdivision thereof for any other purpose is subject to the tax. All sales to the United States, the District of Columbia, or a Territory or possession of the United States are taxable regardless of whether the bituminous coal was purchased for use in the conduct of a governmental or proprietary function. The sale of coal to a State or political subdivision thereof under such conditions as to be tax-free will not relieve the producer from compliance

[1] Article 31 is amended by Treasury Decision 4598, approved November 5, 1935, which is printed following this Treasury Decision.

with the provisions of section 4, Part II(e), of the Act relative to minimum and maximum prices. To establish the exempt character of the sale under the provisions of this article, the producer must obtain from his vendee prior to or at the time of sale, and retain in his possession, an exemption certificate in substantially the following form:

EXEMPTION CERTIFICATE.

(For use by States or political subdivisions.)

----------, 193--
(Date.)

The undersigned hereby certifies that he is the ----------
(Title of officer.)

of ----------, and that the bituminous coal specified
(State, city, etc.)

in the accompanying order or contract is purchased for use by the ----------
---------- in the exercise of essential governmental
(Department.)

functions, namely: ----------

It is understood that the exemption from tax in the case of sales of bituminous coal to States or political subdivisions thereof is limited to such coal purchased for use in the exercise of essential governmental functions, and it is agreed that when such coal purchased tax-free under this exemption certificate is used for purposes other than in the exercise of essential governmental functions, or is sold to employees or others, the vendee will report such fact to the vendor. It is also understood that the fraudulent use of this certificate to secure exemption will subject the undersigned and all guilty parties to a fine of not more than $10,000 or to imprisonment for not more than five years, or both, together with costs of prosecution.

----------,

(Title of officer.)

The exemption certificates and proper records of invoices, orders, etc., relative to tax-free sales must be retained by the producer so as to be readily accessible for inspection by internal revenue officers. If upon inspection, it is found that a producer's records with respect to any sale claimed to be tax-free do not contain a proper exemption certificate, as above outlined, with supporting invoices and such other evidence as may be necessary to establish the exempt character of the sale, the producer shall be liable for the tax upon such sale.

ART. 42. *Sales for export.*—The tax will not attach to a sale of coal by the producer for export. However, in order for the sale to be exempt it must be a direct sale for export and not a sale for resale for export. Coal may be regarded as having been sold for export if the producer has in his possession at the time title passes or at the time of shipment, whichever is prior, a written order or contract of sale showing that the coal is to be shipped to a foreign destination and that the coal will be transported to a foreign destination prior to use, resale, or other disposal within the United States. Evidence of ultimate exportation must be furnished, as outlined in article 43 of these regulations.

ART. 43. *Proof of exportation.*—Exportation may be evidenced by (1) a copy of the export bill of lading, or (2) a certificate by the agent or representative of the export carrier showing actual exportation of the coal, or (3) a certificate of landing signed by a customs officer of the foreign country to which the coal is exported, or (4) where such foreign country has no customs administration a sworn statement of the foreign consignee covering receipt of the coal.

In all cases the sales records together with the evidence of the proof of exportation must be preserved by the producer for a period of at least four

years from the 1st day of the second succeeding month following the sale, and must be readily accessible for inspection by internal revenue officers.

If the proof of exportation is not furnished within six months from the date of sale by the producer, the producer shall include the tax on the sale of the coal in his return for the month in which such 6-month period expires. If proof of exportation later becomes available, a claim for refund of any tax paid may be filed on Form 843, or a credit may be taken upon any subsequent monthly return, but such action must be taken within the 4-year period of limitation prescribed by section 3228, United States Revised Statutes, as amended.

CHAPTER VI.

ADMINISTRATIVE AND GENERAL PROVISIONS.

MONTHLY RETURNS AND PAYMENT OF TAXES.

Section 8.

* * * such tax * * * to be payable monthly for each calendar month, on or before the first business day of the second succeeding month, and under such regulations, and in such manner, as shall be prescribed by the Commissioner of Internal Revenue: * * *

Section 7.

All provisions of the law, including penalties and refunds, relating to the collection and disposition of internal revenue taxes, shall, in so far as applicable and not inconsistent with the provisions of this Act, be applicable with respect to taxes imposed under this Act.

Section 3173, United States Revised Statutes, as amended.

It shall be the duty of any person, partnership, firm, association, or corporation, made liable to any duty, special tax, or other tax imposed by law, when not otherwise provided for, (1) in case of a special tax, on or before the thirty-first day of July in each year, and (2) in other cases before the day on which the taxes accrue, to make a list or return, verified by oath, to the collector or a deputy collector of the district where located, of the articles or objects, including the quantity of goods, wares, and merchandise, made or sold and charged with a tax, the several rates and aggregate amount, according to the forms and regulations to be prescribed by the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, for which such person, partnership, firm, association, or corporation is liable: * * *

Section 1102 of the Revenue Act of 1926.

* * * * * * *

(b) Whenever in the judgment of the Commissioner necessary he may require any person, by notice served upon him, to make a return, render under oath such statements, or keep such records as the Commissioner deems sufficient to show whether or not such person is liable to tax.

(c) The Commissioner, with the approval of the Secretary, may by regulation prescribe that any return required by any internal revenue law (except returns required under income or estate tax laws) to be under oath may, if the amount of the tax covered thereby is not in excess of $10, be signed or acknowledged before two witnesses instead of under oath.

ART. 51. *Returns.*—Every producer made liable to the tax imposed by the Act shall prepare for each calendar month a return in duplicate on Form 1 (Coal) in accordance with the instructions thereon and in accordance with these regulations. The return must be under oath and verified before an officer duly authorized to administer oaths. If the amount of the tax shown by the return to be due is $10 or less, the return may be signed and acknowledged before two subscribing witnesses instead of under oath.

ART. 52. *Time for filing returns.*—The return for each calendar month shall be filed in duplicate with the collector for the district in which is situated the principal place of business of the person filing the return, on or before the first business day of the second succeeding month. For example, the return for the month of November, 1935, is due on or before January 2, 1936.

ART. 53. *Time of payment.*—The amount of tax shown on the return to be due shall be paid to the collector at the time fixed for filing the return, without assessment by the Commissioner or notice from the collector.

Section 626 of the Revenue Act of 1932.

* * * * * * *

(b) * * * If the tax is not paid when due, there shall be added as part of the tax interest at the rate of 1 per centum a month from the time when the tax became due until paid.

Section 404 of the Revenue Act of 1935.

Notwithstanding any provision of law to the contrary, interest accruing during any period of time after the date of the enactment of this Act upon any internal-revenue tax (including amounts assessed or collected as a part thereof) or customs duty, not paid when due, shall be at the rate of 6 per centum per annum.

ART. 54. *Interest on delinquent taxes.*—If the tax is not paid when due there shall be added as part of the tax interest at the rate of 6 per cent per annum from the time when the tax became due until paid.

Section 1104 of the Revenue Act of 1926, as amended by section 618 of the Revenue Act of 1928.

The Commissioner, for the purpose of ascertaining the correctness of any return or for the purpose of making a return where none has been made, is hereby authorized, by any officer or employee of the Bureau of Internal Revenue, including the field service, designated by him for that purpose, to examine any books, papers, records, or memoranda bearing upon the matters required to be included in the return, and may require the attendance of the person rendering the return or of any officer or employee of such person, or the attendance of any other person having knowledge in the premises, and may take his testimony with reference to the matter required by law to be included in such return, with power to administer oaths to such person or persons.

ART. 55. *Records.*—Every producer shall keep on file at the principal place of business, or at some other convenient or safe location, accurate records and accounts of all transactions involving the sale or other disposal of bituminous coal, including captive coal. Evidence with respect to sale for export, and sales to States or political subdivisions thereof, upon which no tax is due, must also be maintained. (See articles 41 and 42.)

The records shall contain sufficient information to enable the Commissioner to determine whether the correct amount of tax has been paid. Such records shall at all times be open for inspection by internal revenue officers, and shall be maintained for a period of at least four years from the date the tax became due or, in the case of tax-free sales, for a period of at least four years from the 1st day of the second succeeding month following the month in which the sale was made.

JEOPARDY ASSESSMENT.

Section 1105 of the Revenue Act of 1932, as amended by section 510 of the Revenue Act of 1934.

(a) If the Commissioner believes that the collection of any tax (other than income tax, estate tax, and gift tax) under any provision of the internal-revenue laws will be jeopardized by delay, he shall, whether or not the time otherwise prescribed by law for making return and paying such tax has expired, immediately assess such tax (together with all interest and penalties the assessment of which is provided

for by law). Such tax, penalties, and interest shall thereupon become immediately due and payable, and immediate notice and demand shall be made by the collector for the payment thereof. Upon failure or refusal to pay such tax, penalty, and interest, collection thereof by distraint shall be lawful without regard to the period prescribed in section 3187 of the Revised Statutes, as amended.

(b) The collection of the whole or any part of the amount of such assessment may be stayed by filing with the collector a bond in such amount, not exceeding double the amount as to which the stay is desired, and with such sureties, as the collector deems necessary, conditioned upon the payment of the amount collection of which is stayed, at the time at which, but for this section, such amount would be due.

PENALTIES.

Section 3176, United States Revised Statutes, as amended by section 1103 of the Revenue Act of 1926 and section 619(d) of the Revenue Act of 1928.

* * * In case of any failure to make and file a return or list within the time prescribed by law, or prescribed by the Commissioner of Internal Revenue or the collector in pursuance of law, the Commissioner shall add to the tax 25 per centum of its amount, except that when a return is filed after such time and it is shown that the failure to file it was due to a reasonable cause and not to willful neglect, no such addition shall be made to the tax. In case a false or fraudulent return or list is willfully made, the Commissioner shall add to the tax 50 per centum of its amount.

The amount so added to any tax shall be collected at the same time and in the same manner and as a part of the tax unless the tax has been paid before the discovery of the neglect, falsity, or fraud, in which case the amount so added shall be collected in the same manner as the tax.

Section 406, Revenue Act of 1935.

In the case of a failure to make and file an internal-revenue tax return required by law, within the time prescribed by law or prescribed by the Commissioner in pursuance of law, if the last date so prescribed for filing the return is after the date of the enactment of this Act, if a 25 per centum addition to the tax is prescribed by existing law, then there shall be added to the tax, in lieu of such 25 per centum: 5 per centum if the failure is for not more than 30 days, with an additional 5 per centum for each additional 30 days or fraction thereof during which failure continues, not to exceed 25 per centum in the aggregate.

Section 1114 of the Revenue Act of 1926.

* * * * * * *

(c) Any person who willfully aids or assists in, or procures, counsels, or advises, the preparation or presentation under, or in connection with any matter arising under, the internal-revenue laws, of a false or fraudulent return, affidavit, claim, or document, shall (whether or not such falsity or fraud is with the knowledge or consent of the person authorized or required to present such return, affidavit, claim, or document) be guilty of a felony and, upon conviction thereof, be fined not more than $10,000, or imprisoned for not more than five years, or both, together with the costs of prosecution.

Section 35 of the Criminal Code of the United States, as amended by Act of Congress approved June 18, 1934 (Public, No. 394, Seventy-third Congress).

Whoever shall make or cause to be made or present or cause to be presented, for payment or approval, to or by any person or officer in the civil, military, or naval service of the United States, or any department thereof, or any corporation in which the United States of America is a stockholder, any claim upon or against the Govern-

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ment of the United States, or any department or officer thereof, or any corporation in which the United States of America is a stockholder, knowing such claim to be false, fictitious, or fraudulent; or whoever shall knowingly and willfully falsify or conceal or cover up by any trick, scheme, or device a material fact, or make or cause to be made any false or fraudulent statements or representations, or make or use or cause to be made or used any false bill, receipt, voucher, roll, account, claim, certificate, affidavit, or deposition, knowing the same to contain any fraudulent or fictitious statement or entry, in any matter within the jurisdiction of any department or agency of the United States or of any corporation in which the United States of America is a stockholder; * * * or whoever shall enter into any agreement, combination, or conspiracy to defraud the Government of the United States, or any department or officer thereof, or any corporation in which the United States of America is a stockholder, by obtaining or aiding to obtain the payment or allowance of any false or fraudulent claim; * * * shall be fined not more than $10,000 or imprisoned not more than ten years, or both. * * *

Section 37, United States Criminal Code.

If two or more persons conspire either to commit any offense against the United States, or to defraud the United States in any manner or for any purpose, and one or more of such parties do any act to effect the object of the conspiracy, each of the parties to such conspiracy shall be fined not more than ten thousand dollars, or imprisoned not more than two years, or both.

Section 3177, United States Revised Statutes.

Any collector, deputy collector, or inspector may enter, in the daytime, any building or place where any articles or objects subject to tax are made, produced, or kept, within his district, so far as it may be necessary, for the purpose of examining said articles or objects. And any owner of such building or place, or person having the agency or superintendence of the same, who refuses to admit such officer, or to suffer him to examine such article or articles, shall, for every such refusal, forfeit five hundred dollars. And when such premises are open at night, such officers may enter them while so open, in the performance of their official duties. And if any person shall forcibly obstruct or hinder any collector, deputy collector, or inspector, in the execution of any power and authority vested in him by law, * * * the person so offending, excepting in cases otherwise provided for, shall, for every such offense, forfeit and pay the sum of five hundred dollars, * * * or be imprisoned for a term not exceeding two years, at the discretion of the court.

Section 3184, United States Revised Statutes.

Where it is not otherwise provided, the collector shall in person or by deputy, within ten days after receiving any list of taxes from the Commissioner of Internal Revenue, give notice to each person liable to pay any taxes stated therein, to be left at his dwelling or usual place of business, or to be sent by mail, stating the amount of such taxes and demanding payment thereof. If such person does not pay the taxes, within ten days after the service or the sending by mail of such notice, it shall be the duty of the collector or his deputy to collect the said taxes with a penalty of five per centum additional upon the amount of taxes, and interest at the rate of one per centum a month.

(Note: See Section 404 of Revenue Act of 1935 with respect to interest.)

Section 1123 of the Revenue Act of 1926.

Whoever in connection with the sale or lease, or offer for sale or lease, of any article, or for the purpose of making such sale or lease, makes any statement, written or oral, (1) intended or calculated to lead any person to believe that any part of the price at which such

article is sold or leased, or offered for sale or lease, consists of a tax imposed under the authority of the United States, or (2) ascribing a particular part of such price to a tax imposed under the authority of the United States, knowing that such statement is false or that the tax is not so great as the portion of such price ascribed to such tax, shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than $1,000 or by imprisonment not exceeding one year, or both.

ART. 56. *Penalties.*—A failure to file a return as provided for in these regulations causes to accrue a penalty of 5 per cent of the amount of the tax if such failure is for not more than 30 days, with an additional 5 per cent for each additional 30 days or fraction thereof during which failure continues. In no case, however, shall the penalty exceed 25 per cent in the aggregate.

If assessment is made of the tax, penalty, or interest, and payment is not made within 10 days after the issuance of the form for first notice and demand, based on assessment approved by the Commissioner, there will accrue a 5 per cent penalty, and interest at the rate of 6 per cent a year computed upon the entire assessment (including penalty and interest, if any) from 10 days after issuance of said form until date of payment. In cases where assessment is settled by partial payments, interest is to be computed from the expiration of the first 10-day notice through the date of the first payment and from the next succeeding day to the date of the next payment, until the assessment is paid in full.

If a claim for abatement is filed with the collector within 10 days after the date of the issuance of the first notice and demand, the 5 per cent penalty does not attach. If the assessment is not paid within 10 days after receipt of notice of rejection of the claim, the 5 per cent penalty applies. The filing of the claim does not stay the running of interest, which continues to run for the full period that intervenes between the date of expiration of the first notice and demand and the date of payment.

If a false or fraudulent return be willfully made, the penalty under section 3176 of the Revised Statutes is 50 per cent of the total tax due.

CLOSING AGREEMENTS.

Section 606 (a) and (b) of the Revenue Act of 1928.

(a) *Authorization.*—The Commissioner (or any officer or employee of the Bureau of Internal Revenue, including the field service, authorized in writing by the Commissioner) is authorized to enter into an agreement in writing with any person relating to the liability of such person (or of the person or estate for whom he acts) in respect of any internal-revenue tax for any taxable period ending prior to the date of the agreement.

(b) *Finality of agreements.*—If such agreement is approved by the Secretary, or the Undersecretary, within such time as may be stated in such agreement, or later agreed to, such agreement shall be final and conclusive, and, except upon a showing of fraud or malfeasance, or misrepresentation of a material fact—

(1) the case shall not be reopened as to the matters agreed upon or the agreement modified, by any officer, employee, or agent of the United States, and

(2) in any suit, action, or proceeding, such agreement, or any determination, assessment, collection, payment, abatement, refund, or credit made in accordance therewith, shall not be annulled, modified, set aside, or disregarded.

ART. 57. *Closing agreements.*—Agreements for the final determination of taxes imposed under the Act may be entered into under the provisions of section 606 (a) and (b) of the Revenue Act of 1928. Such closing or final agreements may relate to any taxable period ending prior to the date of the agreement. Such an agreement may be executed even though under such agreement the taxpayer is not liable for any tax for the period covered by the agreement. Any tax or deficiency in tax determined pursuant to such agreement shall be assessed and collected, and any overpayment determined pursuant thereto shall be credited or refunded in accordance with the applicable provisions of the internal-revenue laws.

Section 3220 of the United States Revised Statutes, as amended by section 1111 of the Revenue Act of 1926 and section 619(b) of the Revenue Act of 1928.

Except as otherwise provided * * * the Commissioner of Internal Revenue, subject to regulations prescribed by the Secretary of the Treasury, is authorized to remit, refund, and pay back all taxes erroneously or illegally assessed or collected, all penalties collected without authority, and all taxes that appear to be unjustly assessed or excessive in amount, or in any manner wrongfully collected; * * *.

Section 3228(a) of the United States Revised Statutes, as amended by section 1112 of the Revenue Act of 1926, section 619(c) of the Revenue Act of 1928, and section 1106(a) of the Revenue Act of 1932.

All claims for the refunding or crediting of any internal-revenue tax alleged to have been erroneously or illegally assessed or collected, or of any penalty alleged to have been collected without authority, or of any sum alleged to have been excessive or in any manner wrongfully collected must, * * * be presented to the Commissioner of Internal Revenue within four years next after the payment of such tax, penalty, or sum. The amount of the refund * * * shall not exceed the portion of the tax, penalty, or sum paid during the four years immediately preceding the filing of the claim, or if no claim was filed, then during the four years immediately preceding the allowance of the refund.

INTEREST ON OVERPAYMENTS.

Section 614 of the Revenue Act of 1928.

(a) Interest shall be allowed and paid upon any overpayment in respect of any internal-revenue tax, at the rate of 6 per centum per annum, as follows:

(1) In the case of a credit, from the date of the overpayment to the due date of the amount against which the credit is taken, but if the amount against which the credit is taken is an additional assessment of a tax imposed by the Revenue Act of 1921 or any subsequent revenue Act, then to the date of the assessment of that amount.

(2) In the case of a refund, from the date of the overpayment to a date preceding the date of the refund check by not more than 30 days, such date to be determined by the Commissioner.

(b) As used in this section the term "additional assessment" means a further assessment for a tax of the same character previously paid in part, and includes the assessment of a deficiency of any income or estate tax imposed by the Revenue Act of 1924 or by any subsequent revenue Act.

* * * * * * *

ART. 58. *Refunds.*—A tax (including penalty if any) erroneously, illegally, or otherwise wrongfully collected may be refunded by the Commissioner. A claim for such refund must be made on the prescribed form in accordance with the instructions printed on such form and in accordance with these regulations. Copies of the prescribed forms may be obtained from the collector. The claim should set forth clearly in detail the reasons and facts relied upon in support of the claim, must be made under oath, and presented within four years next after payment of such taxes.

WRIGHT MATTHEWS,
Acting Commissioner of Internal Revenue.

Approved October 31, 1935.

H. MORGENTHAU, Jr.,
Secretary of the Treasury.

T. D. 4598.

Tax on the sale or other disposal of bituminous coal under section 3 of the Bituminous Coal Conservation Act of 1935.—Treasury Decision 4596, article 31 [*infra*], amended.

TREASURY DEPARTMENT,
OFFICE OF COMMISSIONER OF INTERNAL REVENUE,
Washington, D. C.

To Collectors of Internal Revenue and Others Concerned:

Article 31 of Treasury Decision 4596, approved October 31, 1935 (relating to the tax on the sale or other disposal of bituminous coal under section 3 of the Bituminous Coal Conservation Act of 1935), is amended to read as follows:

ART. 31. *Producers entitled to credit.*—In order to be entitled to the deduction, on the return, of the credit or drawback of 90 per cent of the amount of the tax, as provided by section 3 of the Act, a producer must have been a member of the bituminous coal code (see article 32) during the taxable period for which the return is made. See article 51. No credit or drawback is allowable with respect to coal sold or disposed of prior to the date of filing with the commission acceptance of the code.

WRIGHT MATTHEWS,
Acting Commissioner of Internal Revenue.

Approved November 5, 1935.

JOSEPHINE ROCHE,
Acting Secretary of the Treasury.

U. S. GOVERNMENT PRINTING OFFICE: 1935

INTERSTATE AND INTRASTATE SHIPMENTS OF BITUMINOUS COAL ORIGINATING IN WEST VIRGINIA [illegible]

1927 - 1932, 1934

(Net Tons)

	1927		1928		1929		1930		1931	
	TONS	% TOTAL	TONS	% TOTAL	TONS	% TOTAL	TONS	% TOTAL	TONS	% TOTAL
DESTINATION										
Illinois	4,143,846	15.4	4,545,249	17.9	4,496,333	15.4	4,154,688	16.2	3,310,847	15.1
Indiana	837,643	3.1	726,520	2.9	807,738	2.8	687,021	2.7	530,505	2.4
Iowa	83,757	0.3	90,162	0.3	99,087	0.3	82,544	0.3	67,460	0.3
Kentucky	206,114	0.8	200,270	0.8	154,247	0.5	141,631	0.5	104,666	0.5
Michigan	1,498,400	5.6	1,736,694	6.8	2,063,172	7.1	1,726,668	6.7	1,433,541	6.6
Minnesota	146,637	0.5	155,747	0.6	126,898	0.4	151,137	0.6	114,851	0.5
Missouri	136,208	0.5	133,453	0.5	80,232	0.3	93,218	0.4	109,900	0.5
Ohio	3,149,931	11.7	2,988,386	11.7	3,293,819	11.3	2,519,799	9.8	1,811,570	8.3
Wisconsin	566,230	2.1	635,217	2.5	661,057	2.3	578,733	2.2	443,155	2.0
All other inland - west	28,414	0.1	17,804	0.1	16,681	0.1	21,285	0.1	17,605	0.1
TOTAL - INLAND WEST	10,797,180	40.1	11,229,502	44.1	11,799,264	40.5	10,156,724	39.5	7,944,100	36.3
Alabama	13,663	— *	31,931	0.1	52,815	0.2	14,987	0.1	—	—
Dist. of Columbia	800,409	3.0	708,978	2.8	454,112	1.5	404,755	1.6	232,648	1.1
Florida	4,587	— *	5,815	— *	3,228	— *	1,168	— *	503	— *
Georgia	48,065	0.2	34,213	0.2	10,000	— *	11,561	— *	10,519	— *
Maryland	68,088	0.3	67,520	0.3	65,384	0.2	61,580	0.2	66,062	0.3
North Carolina	638,436	2.4	584,179	2.3	463,275	1.6	367,403	1.4	397,870	1.8
South Carolina	81,055	0.3	59,159	0.2	48,397	0.2	50,155	0.2	37,197	0.2
Virginia (1)	1,380,203	5.1	1,408,183	5.5	1,474,863	5.1	1,538,947	6.0	1,532,977	7.0
All other - east and south	—	—	1,386	— *	18,225	0.1	18,163	0.1	1,788	— *
TOTAL - EAST AND SOUTH	3,034,506	11.3	2,901,364	11.4	2,590,299	8.9	2,468,719	9.6	2,279,564	10.4
Delaware	311	— *	875	— *	551	— *	289	— *	139	— *
New Jersey	1,320	— *	1,707	— *	789	— *	1,111	— *	7,791	0.1
New York	86,974	0.3	32,828	0.1	58,769	0.2	150,890	0.6	28,110	0.1
Pennsylvania	260,448	1.0	212,377	0.9	200,107	0.7	126,814	0.5	64,624	0.3
TOTAL - NORTH ATLANTIC	349,653	1.3	247,787	1.0	260,216	0.9	279,104	1.1	100,664	0.5
NEW ENGLAND	62,174	0.2	58,019	0.2	50,432	0.2	41,942	0.2	30,590	0.1
CANADA	110,713	0.4	80,288	0.3	206,204	0.7	90,285	0.3	84,540	0.4
TOTAL - ALL-RAIL TO INTERSTATE MARKETS	14,354,226	53.3	14,516,960	57.0	14,906,415	51.2	13,036,774	50.7	10,439,458	47.7
TOTAL - LAKE	2,662,066	9.9	2,770,134	10.9	3,611,089	12.4	2,879,697	11.2	2,813,168	12.9
TOTAL - TIDEWATER	9,326,791	34.6	7,617,400	29.9	10,065,329	34.6	9,129,906	35.5	7,984,515	36.5
TOTAL - TO MARKETS OUTSIDE WEST VIRGINIA	26,343,083	97.8	24,904,494	97.8	28,582,833	98.2	25,046,377	97.4	21,237,141	97.

DESTINATION										
Illinois	4,143,846	15.4	4,545,249	17.9	4,496,333	15.4	4,154,688	16.2	3,310,847	15.1
Indiana	837,643	3.1	726,520	2.9	807,738	2.8	687,021	2.7	530,505	2.4
Iowa	83,757	0.3	90,168	0.3	99,087	0.3	82,544	0.3	67,460	0.3
Kentucky	206,114	0.8	200,270	0.8	154,247	0.5	141,631	0.5	104,666	0.5
Michigan	1,498,400	5.6	1,736,694	6.8	2,063,172	7.1	1,726,668	6.7	1,433,541	6.6
Minnesota	146,637	0.5	155,747	0.6	126,898	0.4	151,137	0.6	114,851	0.5
Missouri	136,208	0.5	133,453	0.5	80,232	0.3	93,218	0.4	109,900	0.5
Ohio	3,149,931	11.7	2,988,386	11.7	3,293,819	11.3	2,519,799	9.8	1,811,570	8.3
Wisconsin	566,230	2.1	635,217	2.5	661,057	2.3	578,733	2.2	443,155	2.0
All other inland - west	28,414	0.1	17,804	0.1	16,681	0.1	21,285	0.1	17,605	0.1
TOTAL - INLAND WEST	10,797,180	40.1	11,229,502	44.1	11,799,264	40.5	10,156,724	39.5	7,944,100	36.3
Alabama	13,663	— *	31,931	0.1	52,815	0.2	14,987	0.1	—	—
Dist. of Columbia	800,409	3.0	708,978	2.8	454,112	1.5	404,755	1.6	232,648	1.1
Florida	4,587	— *	5,815	— *	3,228	— *	1,168	— *	503	— *
Georgia	48,065	0.2	34,213	0.2	10,000	— *	11,561	— *	10,519	— *
Maryland	68,088	0.3	67,520	0.3	65,384	0.2	61,580	0.2	66,062	0.3
North Carolina	638,436	2.4	584,179	2.3	463,275	1.6	367,403	1.4	397,870	1.8
South Carolina	81,055	0.3	59,159	0.2	48,397	0.2	50,155	0.2	37,197	0.2
Virginia (1)	1,380,203	5.1	1,408,183	5.5	1,474,863	5.1	1,538,947	6.0	1,532,977	7.0
All other - east and south	—	—	1,386	— *	18,225	0.1	18,163	0.1	1,788	— *
TOTAL - EAST AND SOUTH	3,034,506	11.3	2,901,364	11.4	2,590,299	8.9	2,468,719	9.6	2,279,564	10.4
Delaware	311	— *	875	— *	551	— *	289	— *	139	— *
New Jersey	1,320	— *	1,707	— *	789	— *	1,111	— *	7,791	0.1
New York	86,974	0.3	32,828	0.1	58,769	0.2	150,890	0.6	28,110	0.1
Pennsylvania	260,448	1.0	212,377	0.9	200,107	0.7	126,814	0.5	64,624	0.3
TOTAL - NORTH ATLANTIC	349,653	1.3	247,787	1.0	260,216	0.9	279,104	1.1	100,664	0.5
NEW ENGLAND	62,174	0.2	58,019	0.2	50,432	0.2	41,942	0.2	30,590	0.1
CANADA	110,713	0.4	80,288	0.3	206,204	0.7	90,285	0.3	84,540	0.4
TOTAL - ALL-RAIL TO INTERSTATE MARKETS	14,354,226	53.3	14,516,960	57.0	14,906,415	51.2	13,036,774	50.7	10,439,458	47.7
TOTAL - LAKE	2,662,066	9.9	2,770,134	10.9	3,611,089	12.4	2,879,697	11.2	2,813,168	12.9
TOTAL - TIDEWATER	9,326,791	34.6	7,617,400	29.9	10,065,329	34.6	9,129,906	35.5	7,984,515	36.5
TOTAL - TO MARKETS OUTSIDE WEST VIRGINIA	26,343,083	97.8	24,904,494	97.8	28,582,833	98.2	25,046,377	97.4	21,237,141	97.1
RAILWAY FUEL	118,758	0.5	124,185	0.5	166,896	0.6	253,064	1.0	311,827	1.4
INTRASTATE (To West Va. Points)	465,099	1.7	425,005	1.7	342,295	1.2	413,945	1.6	328,343	1.5
GRAND TOTAL	26,926,940	100.0	25,453,684	100.0	29,092,024	100.0	25,713,386	100.0	21,877,311	100.0

* Less 0.1 Percent.

(1) Several mines of the Smokeless field are located in Virginia but their tonnage is relatively unimportant.

(2) Data not available for calendar year 1933

Source: Smokeless Coa
Washington, D

TE AND INTRASTATE SHIPMENTS OF BITUMINOUS COAL ORIGINATING IN WEST VIRGINIA SOUTHERN FIELDS

1927 - 1932, 1934

(Net Tons)

	1928		1929		1930		1931		1932		1933(2)		1934	
L	TONS	% TOTAL	TONS	% TOTAL	TONS	% TOTAL	TONS	% TOTAL	TONS	% TOTAL	TONS	% TOTAL	TONS	% TOTAL
	4,545,249	17.9	4,496,333	15.4	4,154,688	16.2	3,310,847	15.1	3,416,202	17.1	—	—	5,814,414	15.7
	726,520	2.9	807,738	2.8	687,021	2.7	530,505	2.4	508,118	2.6	—	—	995,549	2.7
	90,162	0.3	99,087	0.3	82,544	0.3	67,460	0.3	66,767	0.3	—	—	73,979	0.2
	200,270	0.8	154,247	0.5	141,631	0.5	104,666	0.5	107,608	0.5	—	—	121,188	0.3
	1,736,694	6.8	2,063,172	7.1	1,726,668	6.7	1,433,541	6.6	1,553,358	7.8	—	—	2,814,880	7.6
	155,747	0.6	126,898	0.4	151,137	0.6	114,851	0.5	144,266	0.7	—	—	139,210	0.4
	133,453	0.5	80,232	0.3	93,218	0.4	109,900	0.5	67,984	0.4	—	—	58,310	0.2
	2,988,386	11.7	3,293,819	11.3	2,519,799	9.8	1,811,570	8.3	1,699,084	8.5	—	—	3,357,474	9.0
	635,217	2.5	661,057	2.3	578,733	2.2	443,155	2.0	442,154	2.2	—	—	624,618	1.7
	17,804	0.1	16,681	0.1	21,285	0.1	17,605	0.1	22,354	0.1	—	—	17,590	— *
	11,229,502	44.1	11,799,264	40.5	10,156,724	39.5	7,944,100	36.3	8,027,895	40.2	—	—	14,017,212	37.8
	31,931	0.1	52,815	0.2	14,987	0.1	—	—	501	— *	—	—	98,060	0.3
	708,978	2.8	454,112	1.5	404,755	1.6	232,648	1.1	273,503	1.4	—	—	744,987	2.0
	5,815	— *	3,228	— *	1,168	— *	503	— *	991	— *	—	—	4,304	— *
	34,213	0.2	10,000	— *	11,561	— *	10,519	— *	10,187	— *	—	—	9,767	— *
	67,520	0.3	65,384	0.2	61,580	0.2	66,062	0.3	73,098	0.4	—	—	185,453	0.5
	584,179	2.3	463,275	1.6	367,403	1.4	397,870	1.8	373,092	1.9	—	—	964,873	2.6
	59,159	0.2	48,397	0.2	50,155	0.2	37,197	0.2	26,144	0.1	—	—	105,816	0.3
	1,408,183	5.5	1,474,863	5.1	1,538,947	6.0	1,532,977	7.0	1,290,582	6.5	—	—	3,051,625	8.2
	1,386	— *	18,225	0.1	18,163	0.1	1,788	— *	293	— *	—	—	23,728	0.1
	2,901,364	11.4	2,590,299	8.9	2,468,719	9.6	2,279,564	10.4	2,048,391	10.3	—	—	5,188,613	14.0
	875	— *	551	— *	289	— *	139	— *	210	— *	—	—	710	— *
	1,707	— *	789	— *	1,111	— *	7,791	0.1	22,121	0.1	—	—	74,742	0.2
	32,828	0.1	58,769	0.2	150,890	0.6	28,110	0.1	22,743	0.1	—	—	121,000	0.3
	212,377	0.9	200,107	0.7	126,814	0.5	64,624	0.3	43,421	0.2	—	—	82,514	0.2
	247,787	1.0	260,216	0.9	279,104	1.1	100,664	0.5	88,495	0.4	—	—	278,966	0.7
	58,019	0.2	50,432	0.2	41,942	0.2	30,590	0.1	20,177	0.1	—	—	20,206	0.1
	80,288	0.3	206,204	0.7	90,285	0.3	84,540	0.4	89,420	0.4	—	—	154,130	0.4
	14,516,960	57.0	14,906,415	51.2	13,036,774	50.7	10,439,458	47.7	10,274,378	51.4	—	—	19,659,127	53.0
	2,770,134	10.9	3,611,089	12.4	2,879,697	11.2	2,813,168	12.9	2,472,310	12.4	—	—	5,124,616	13.8
	7,617,400	29.9	10,065,329	34.6	9,129,906	35.5	7,984,515	36.5	6,754,549	33.8	—	—	11,426,358	30.8
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19,501,237	97.6	—	—	36,210,101	97.6

4,545,249	17.9	4,496,353	15.4	4,154,688	16.2	3,310,847	15.1	3,410,102	17.1	—	—	5,814,424	15.7
726,520	2.9	807,738	2.8	687,021	2.7	530,505	2.4	508,118	2.6	—	—	995,549	2.7
90,162	0.3	99,087	0.3	82,544	0.3	67,460	0.3	66,767	0.3	—	—	73,979	0.2
200,270	0.8	154,247	0.5	141,631	0.5	104,666	0.5	107,608	0.5	—	—	121,188	0.3
1,736,694	6.8	2,063,172	7.1	1,726,668	6.7	1,433,541	6.6	1,553,358	7.8	—	—	2,814,880	7.6
155,747	0.6	126,898	0.4	151,137	0.6	114,851	0.5	144,266	0.7	—	—	139,210	0.4
133,453	0.5	80,232	0.3	93,218	0.4	109,900	0.5	67,984	0.4	—	—	58,310	0.2
2,988,386	11.7	3,293,819	11.3	2,519,799	9.8	1,811,570	8.3	1,699,084	8.5	—	—	3,357,474	9.0
635,217	2.5	661,057	2.3	578,733	2.2	443,155	2.0	442,154	2.2	—	—	624,618	1.7
17,804	0.1	16,681	0.1	21,285	0.1	17,605	0.1	22,354	0.1	—	—	17,590	— *
11,229,502	44.1	11,799,264	40.5	10,156,724	39.5	7,944,100	36.3	8,027,895	40.2	—	—	14,017,212	37.8
31,931	0.1	52,815	0.2	14,987	0.1	—	—	501	— *	—	—	98,060	0.3
708,978	2.8	454,112	1.5	404,755	1.6	232,648	1.1	273,503	1.4	—	—	744,987	2.0
5,815	— *	3,228	— *	1,168	— *	503	— *	991	— *	—	—	4,304	— *
34,213	0.2	10,000	— *	11,561	— *	10,519	— *	10,187	— *	—	—	9,767	— *
67,520	0.3	65,384	0.2	61,580	0.2	66,062	0.3	73,098	0.4	—	—	185,453	0.5
584,179	2.3	463,275	1.6	367,403	1.4	397,870	1.8	373,092	1.9	—	—	964,873	2.6
59,159	0.2	48,397	0.2	50,155	0.2	37,197	0.2	26,144	0.1	—	—	105,816	0.3
1,408,183	5.5	1,474,863	5.1	1,538,947	6.0	1,532,977	7.0	1,290,582	6.5	—	—	3,051,625	8.2
1,386	— *	18,225	0.1	18,163	0.1	1,788	— *	293	— *	—	—	23,728	0.1
2,901,364	11.4	2,590,299	8.9	2,468,719	9.6	2,279,564	10.4	2,048,391	10.3	—	—	5,188,613	14.0
875	— *	551	— *	289	— *	139	— *	210	— *	—	—	710	— *
1,707	— *	789	— *	1,111	— *	7,791	0.1	22,121	0.1	—	—	74,742	0.2
32,828	0.1	58,769	0.2	150,890	0.6	28,110	0.1	22,743	0.1	—	—	121,000	0.3
212,377	0.9	200,107	0.7	126,814	0.5	64,624	0.3	43,421	0.2	—	—	82,514	0.2
247,787	1.0	260,216	0.9	279,104	1.1	100,664	0.5	88,495	0.4	—	—	278,966	0.7
58,019	0.2	50,432	0.2	41,942	0.2	30,590	0.1	20,177	0.1	—	—	20,206	0.1
80,288	0.3	206,204	0.7	90,285	0.3	84,540	0.4	89,420	0.4	—	—	154,130	0.4
14,516,960	57.0	14,906,415	51.2	13,036,774	50.7	10,439,458	47.7	10,274,378	51.4	—	—	19,659,127	53.0
2,770,134	10.9	3,611,089	12.4	2,879,697	11.2	2,813,168	12.9	2,472,310	12.4	—	—	5,124,616	13.8
7,617,409	29.9	10,065,329	34.6	9,129,906	35.5	7,984,515	36.5	6,754,549	33.8	—	—	11,426,358	30.8
24,904,494	97.8	28,582,833	98.2	25,046,377	97.4	21,237,141	97.1	19,501,237	97.6	—	—	36,210,101	97.6
124,185	0.5	166,896	0.6	253,064	1.0	311,827	1.4	255,098	1.3	—	—	572,908	1.5
425,005	1.7	342,295	1.2	413,945	1.6	328,343	1.5	212,324	1.1	—	—	346,711	0.9
25,453,684	100.0	29,092,024	100.0	25,713,386	100.0	21,877,311	100.0	19,968,659	100.0	—	—	37,129,720	100.0

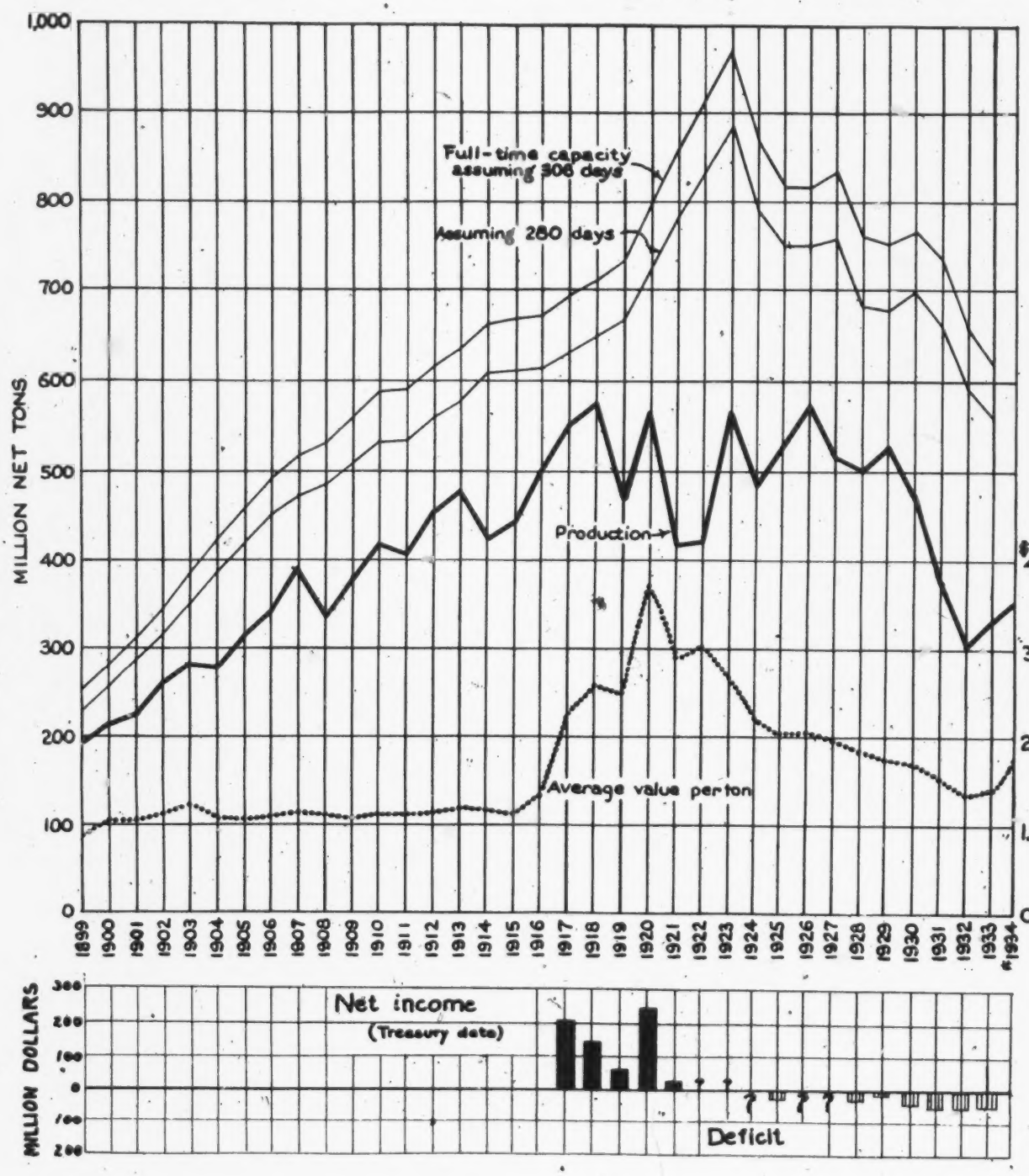
their tonnage is relatively unimportant.

Source: Smokeless Coal Bureau, Washington, D. C.

Prepared by Bituminous Coal Unit
Division of Review, N.R.A.
Under Direction of F. E. Berquist

BITUMINOUS COAL PRODUCTION, REALIZATION AND MINE CAPACITY IN THE UNITED STATES 1899 - 1934.

D.Ex. 3



SOURCE: U.S. GEOLOGICAL SURVEY AND U.S. BUREAU OF MINES.
PREPARED BY BITUMINOUS COAL UNIT
DIVISON OF REVIEW, N.R.A. UNDER DIRECTION OF F.E. BERQUIST.

*CAPACITY UNDER N.R.A. CONDITIONS AND WORKING TIME NOT AVAILABLE. DEFICIT ESTIMATED

[fol. 1050] DEFENDANTS' EXHIBIT 3-A

Bituminous Coal Production, Realization and Mine Capacity in the United States, 1899–1934

(Compiled from the annual coal reports of the United States Bureau of Mines)

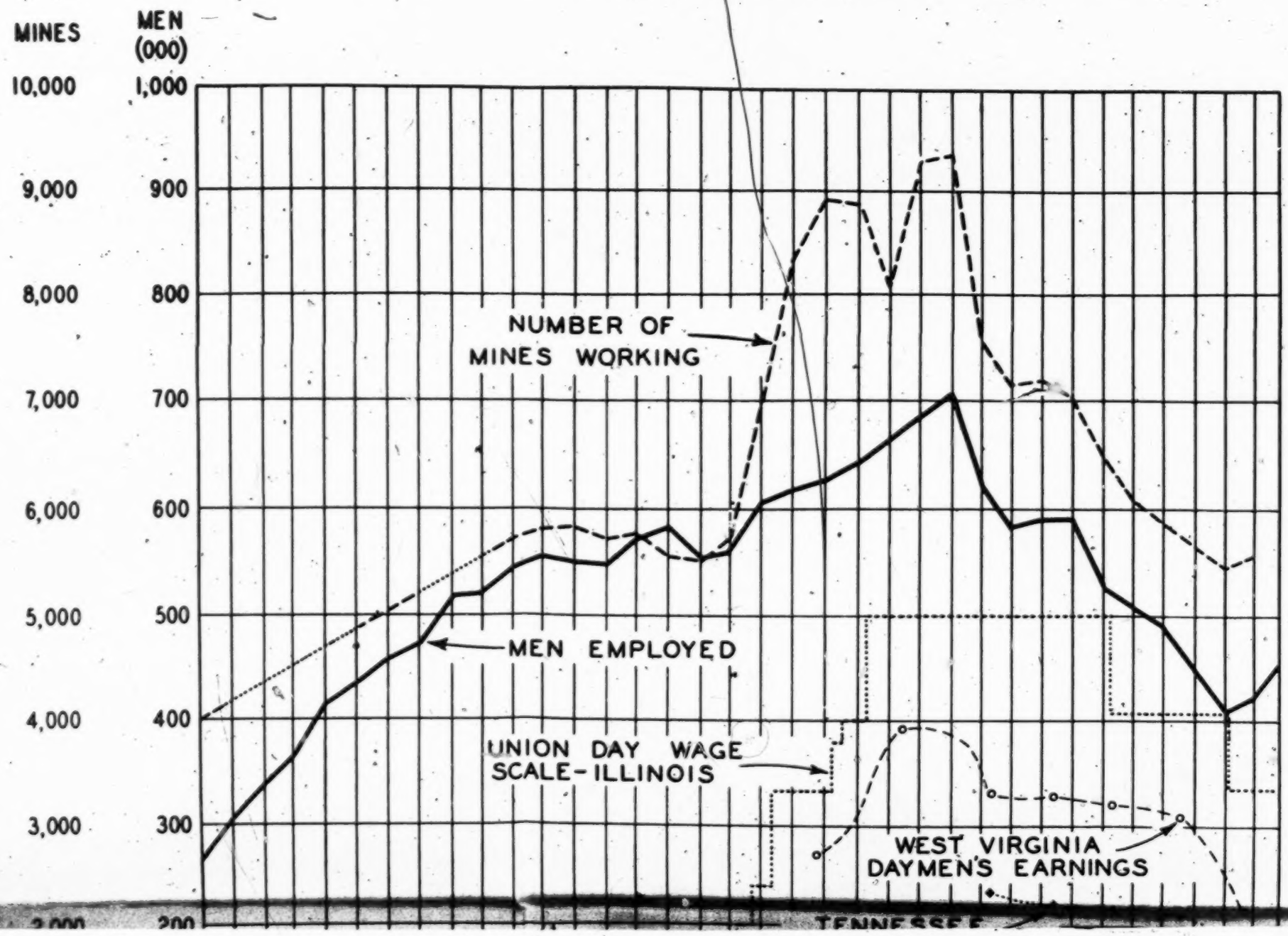
	Production (Millions of net tons)	Calculated capacity (Millions of net tons)		Value per ton
		At 308 days	At 280 days	
1899	193	254	230	$0.87
1900	212	279	255	1.04
1901	226	309	281	1.05
1902	260	348	316	1.12
1903	283	387	350	1.24
1904	279	425	386	1.10
1905	315	460	417	1.06
1906	343	496	451	1.11
1907	395	520	473	1.14
1908	333	531	482	1.12
1909	380	560	510	1.07
1910	417	592	538	1.12
1911	406	593	538	1.11
1912	450	622	566	1.15
1913	478	635	577	1.18
1914	423	668	608	1.17
1915	443	672	610	1.13
1916	503	673	613	1.32
1917	552	699	636	2.26
1918	579	717	650	2.58
1919	466	736	669	2.49
1920	569	796	725	3.75
1921	416	860	781	2.89
1922	422	916	832	3.02
1923	565	970	885	2.68
1924	484	871	792	2.20
1925	520	822	748	2.04
1926	573	821	747	2.06
1927	518	835	759	1.99
1928	501	760	691	1.86
1929	535	752	679	1.78
1930	468	770	700	1.70
1931	382	736	669	1.54
1932	310	653	594	1.31
1933	334	615	559	1.34
1934	358(1)	(2)	(2)	1.82(1)

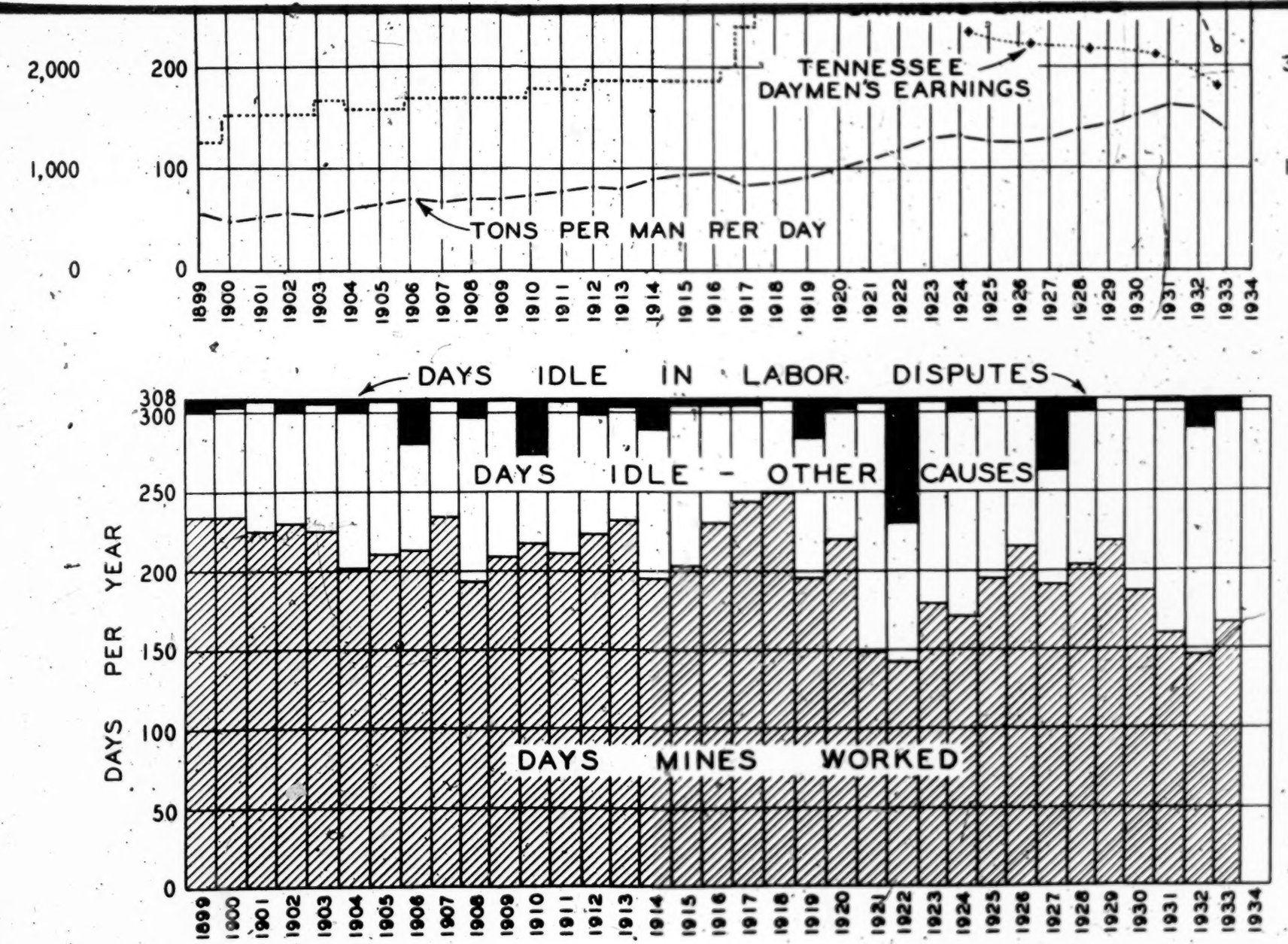
(1) Preliminary.
(2) No data.

By F. G. Tryon and W. H. Young, Coal Economics Division, U. S. Bureau of Mines. October 28, 1935.

TRENDS OF EMPLOYMENT, WORKING TIME, WAGE RATES AND LABOR PRODUCTIVITY, 1899-1934

D.Ex. 4





SOURCES: U. S. Bureau of Mines
Bureau of Labor Statistics

By F. G. Tryon and W. E. Young,
Coal Economics Division,
U. S. Bureau of Mines,
October 25, 1935.

Drafting by R. L. Anderson.

TRENDS OF EMPLOYMENT, WORKING TIME, WAGE RATES AND LABOR PRODUCTIVITY AT BITUMINOUS COAL MINES IN THE UNITED STATES, 1899-1934

(Columns (1) to (6) from annual reports of the U. S. Bureau of Mines; Columns (7) and (8) computed from reports of the U. S. Bureau of Labor Statistics; Column (9) from Report of the U. S. Coal Commission and NRA Code)

Year	(1) Number of men employed (thousands)	(2) Average number of days: Worked	(3) Idle: On account of labor disputes[a]	(4) Idle: Other causes[b]	(5) Net tons per man per day	(6) Number of commercial mines in operation	(7) Average daily earnings all daymen covered by Bureau of Labor Statistics, sample surveys: West Virginia	(8) Tennessee	(9) Illinois scale inside daymen (trackmen)
1899	271	234	5	66	3.05	4,000	(c)	(c)	$1.90
1900	304	234	5	69	2.98	(c)	(c)	(c)	2.28
1901	340	225	2	81	2.94	(c)	(c)	(c)	2.28
1902	370	230	7	71	3.06	(c)	(c)	(c)	2.28
1903	416	225	3	80	3.02	(c)	(c)	(c)	2.56
1904	438	202	5	96	3.15	(c)	(c)	(c)	2.42
1905	461	211	2	95	3.24	5,060	(c)	(c)	2.42
1906	478	213	28	67	3.36	(c)	(c)	(c)	2.56
1907	513	234	1	73	3.29	(c)	(c)	(c)	2.56
1908	516	193	11	104	3.34	(c)	(c)	(c)	2.56
1909	543	209	1	98	(c)	5,775	(c)	(c)	2.56
1910	556	217	35	56	3.46	5,818	(c)	(c)	2.70
1911	550	211	2	95	3.50	5,887	(c)	(c)	2.70
1912	549	223	10	75	3.68	5,747	(c)	(c)	2.85
1913	572	232	5	71	3.61	5,776	(c)	(c)	2.85
1914	584	195	19	94	3.71	5,592	(c)	(c)	2.85
1915	557	203	4	101	3.91	5,502	(c)	(c)	2.85
1916	561	230	4	74	3.90	5,726	(c)	(c)	3.00
1917	603	243	4	61	3.77	6,939	(c)	(c)	3.60 Apr., 5.00 Oct.
1918	615	249	1	58	3.78	8,319	(c)	(c)	5.00
1919	622	195	25	88	3.84	8,994	[e] $4.09	[e] $3.21	5.70 Nov.
1920	640	220	6	82	4.00	8,921	(c)	(c)	6.00 Apr., 7.50 Aug.
1921	664	149	3	156	4.20	8,038	[f] $5.87	(c)	7.50
1922	688	142	78	88	4.28	9,299		(c)	7.50
1923	705	179	2	127	4.47	9,331	(c)	(c)	7.50
1924	620	171	7	130	4.56	7,586	[g] $4.93	[g] $3.55	7.50
1925	588	195	2	111	4.52	7,144	(c)	(c)	7.50
1926	594	215	1	92	4.50	7,177	[h] $4.91	[h] $3.35	7.50
1927	594	191	45	72	4.55	7,011			7.50
1928	522	203	8	97	4.73	6,450	(c)	(c)	6.10 Sept.
1929	503	219	(d)	89	4.85	6,057	[i] $4.76	[i] $3.28	6.10
1930	493	187	2	119	5.06	5,891	(c)	(c)	6.10
1931	450	160	3	145	5.30	5,642	[j] $4.57	[j] $3.19	6.10
1932	406	146	13	143	5.22	5,427	(c)	(c)	5.00 Aug.
1933	419	167	9	132	4.78	5,555	[k] $3.25	[k] $2.66	5.00
1934	[l] 450	---	---	---	---	---	---	---	5.00

[a] Includes strikes, suspensions, and lockouts.

[b] Includes car market car shortage, mine breakdowns, and all other [illegible]

			of labor disputes[a]	causes[b]			West Virginia	Tennessee	
1899	271	234	8	66	3.05	4,000	(c)	(c)	$1.90
1900	304	234	5	69	2.98	(c)	(c)	(c)	2.28
1901	340	225	2	81	2.94	(c)	(c)	(c)	2.28
1902	370	230	7	71	3.06	(c)	(c)	(c)	2.28
1903	416	225	3	80	3.02	(c)	(c)	(c)	2.56
1904	438	202	8	98	3.15	(c)	(c)	(c)	2.42
1905	461	211	2	95	3.24	5,060	(c)	(c)	2.42
1906	478	213	28	67	3.36	(c)	(c)	(c)	2.56
1907	513	234	1	73	3.29	(c)	(c)	(c)	2.56
1908	516	193	11	104	3.34	(c)	(c)	(c)	2.56
1909	543	209	1	98	(c)	5,775	(c)	(c)	2.56
1910	556	217	35	56	3.46	5,818	(c)	(c)	2.70
1911	550	211	2	95	3.50	5,887	(c)	(c)	2.70
1912	549	223	10	75	3.68	5,747	(c)	(c)	2.85
1913	572	232	5	71	3.61	5,776	(c)	(c)	2.85
1914	584	195	19	94	3.71	5,592	(c)	(c)	2.85
1915	557	203	4	101	3.91	5,502	(c)	(c)	2.85
1916	561	230	4	74	3.90	5,726	(c)	(c)	3.00
1917	603	243	4	61	3.77	6,339	(c)	(c)	3.60 Apr., 5.00 Oct.
1918	615	249	1	58	3.78	8,319	(c)	(c)	5.00
1919	622	195	25	88	3.84	8,994	e/ $4.09	e/ $3.21	5.70 Nov.
1920	640	220	6	82	4.00	[illegible]	(c)	(c)	6.00 Apr., 7.50 Aug.
1921	664	149	3	156	4.20		f/ $5.87	(c)	7.50
1922	688	142	78	88	4.28	299		(c)	7.50
1923	705	179	2	127	4.47	9,331	(c)	(c)	7.50
1924	620	171	7	130	4.56	7,586	g/ $4.93	g/ $3.55	7.50
1925	588	195	2	111	4.52	7,144	(c)	(c)	7.50
1926	594	215	1	92	4.50	7,177	h/ $4.91	h/ $3.35	7.50
1927	594	191	45	72	4.55	7,011			7.50
1928	522	203	8	97	4.73	6,450	(c)	(c)	6.10 Sept.
1929	503	219	(d)	89	4.85	6,057	i/ $4.76	i/ $3.28	6.10
1930	493	187	2	119	5.06	5,891	(c)	(c)	6.10
1931	450	160	3	145	5.30	5,642	j/ $4.57	j/ $3.19	6.10
1932	406	146	19	143	5.22	5,427	(c)	(c)	5.00 Aug.
1933	419	167	9	132	4.78	5,555	k/ $3.25	k/ $2.66	5.00
1934	l/ 450	---	---	---	---	---	---	---	5.00

a Includes strikes, suspensions, and lockouts.
b Includes no market car shortage, mine break-downs, and all other causes of lost time except labor disputes.
c No data.
d Less than ½ day.
e Surveys made between January and May.
f Surveys made between October 1, 1921 and February 15, 1922.
g Surveys made between October and December.
h Surveys made between November 26, 1926 and March 22, 1927.
i Surveys made in first quarter.
j Surveys made in first quarter.
k Surveys made in February
l Estimated.

Prepared by: F. G. Tryon and W. H. Young,
Coal Economics Division,
U. S. Bureau of Mines.
October 27, 1935.

Average Spot Prices of Bitum
1913 to 1931, by Mon

ENLARGED FROM CHARTS IN US BUREAU OF MINES "COAL IN 1930" AND JANUARY-SEPTEMBER DATA ADDED

PRICE PER TON

$6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
.50
0

6.13

U.S. ENTERS WAR
PRESIDENT FIXES PRICES
FUEL ADMINISTRATION
GOVERNMENT PRICES LIFTED
RUNAWAY MARKET
GENERAL SUSPENSION HARD AND SOFT COAL MINERS
ACUTE BUSINESS DEPRESSION
OUTPUT DECLINING MARKET
JACKSONVILLE AGREEMENT SIGNED
STIMULATED BUYING PRICES ADVANCE
UNION FIELDS ACCEPT WAGE CUT
STOCK MARKET COLLAPSES

BUSINESS REACTION
EUROPEAN WAR
SEVERE BUSINESS DEPRESSION
SEVERE STORMS, TRAFFIC JAMS, ACUTE SHORTAGE
STOCKS ACCUMULATED
REACTION, CONSUMERS BURN STOCKS
GENERAL STRIKE
SWITCHMEN STRIKE, CAR SHORTAGE
CONSEQUENT REACTION
CONSUMERS STOCK UP, FEARING RAIL STRIKE
GENERAL SUSPENSION SHOPMEN GO OUT
SUSTAINED DEMAND FOR STORAGE
BRITISH STRIKE CAUSES HEAVY EXPORTS
JACKSONVILLE AGREEMENT TERMINATED, STRIKE IN UNION FIELDS
DEPRESSION DEEPENS

1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931

Defendant's Ex. 5

Average Spot Prices of Bituminous Coal 1913 to 1931, by Months.

ENLARGED FROM CHARTS IN U.S. BUREAU OF MINES "COAL IN 1930" AND JANUARY-SEPTEMBER DATA ADDED

PRICE PER TON
$6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
.50
0

613

...ERS WAR

PRESIDENT FIXES PRICES

FUEL ADMINISTRATION

GOVERNMENT PRICES LIFTED

RUNAWAY MARKET

GENERAL SUSPENSION HARD AND SOFT COAL MINERS

ACUTE BUSINESS DEPRESSION

LARGE OUTPUT DECLINING MARKET

JACKSONVILLE AGREEMENT SIGNED

STIMULATED BUYING PRICES ADVANCE

UNION FIELDS ACCEPT WAGE CUT

STOCK MARKET COLLAPSES

SEVERE STORMS, TRAFFIC JAMS, ACUTE SHORTAGE

STOCKS ACCUMULATED

REACTION, CONSUMERS BURN STOCKS

GENERAL STRIKE

SWITCHMEN STRIKE, CAR SHORTAGE

CONSEQUENT REACTION

CONSUMERS STOCK UP, FEARING RAIL STRIKE

GENERAL SUSPENSION SHOPMEN GO OUT

SUSTAINED DEMAND FOR STORAGE

BRITISH STRIKE CAUSES HEAVY EXPORTS

JACKSONVILLE AGREEMENT TERMINATED, STRIKE IN UNION FIELDS

DEPRESSION DEEPENS

J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D

AVERAGE SPOT PRICES OF BITUMINOUS COAL 1913 - 1931, BY MONTHS

D.Ex. 5a

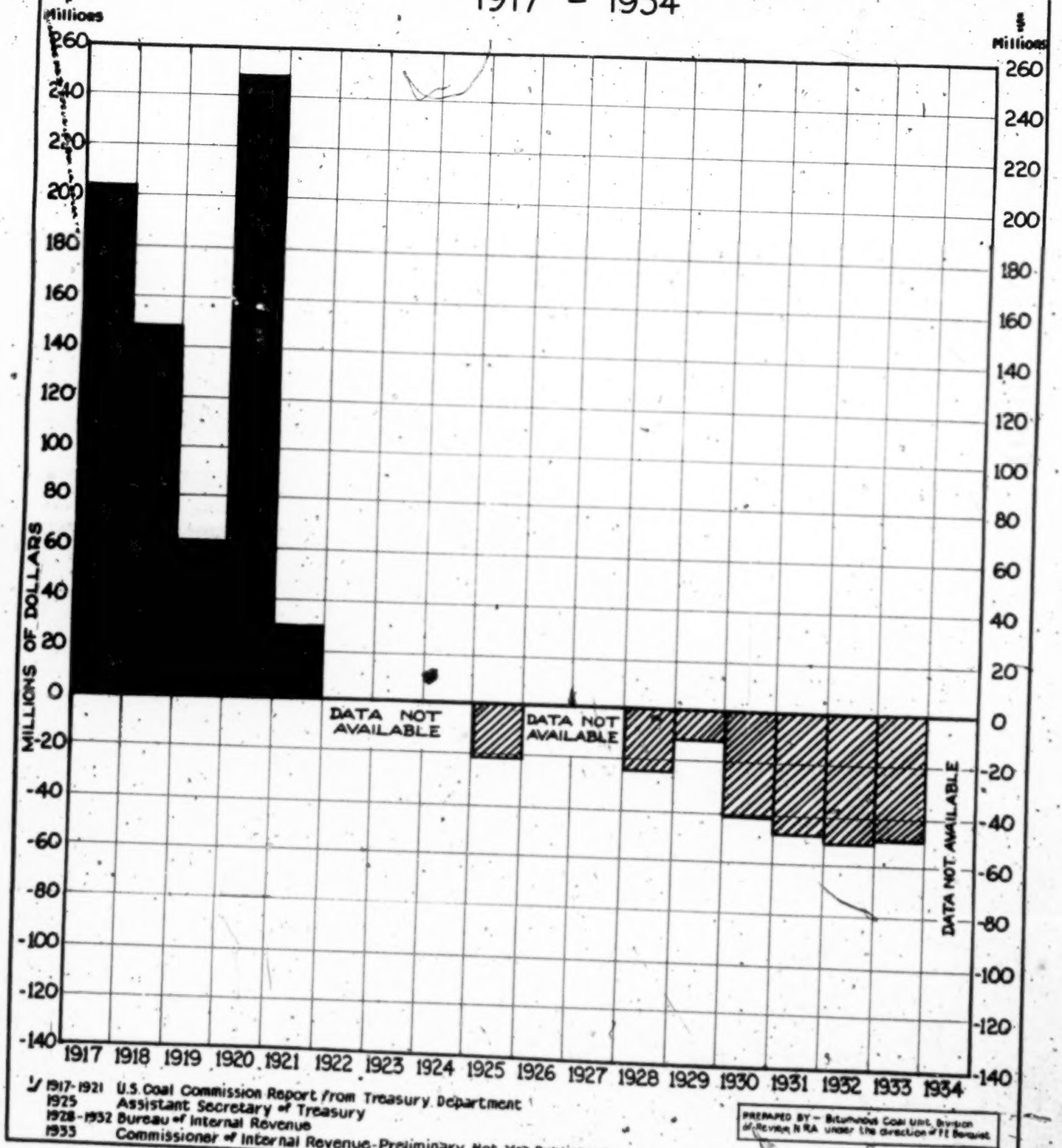
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Average
1913	1.46	1.22	1.17	1.17	1.15	1.14	1.18	1.22	1.23	1.29	1.31	1.26	1.23
1914	1.21	1.16	1.17	1.16	1.16	1.12	1.12	1.13	1.11	1.13	1.10	1.11	1.14
1915	1.13	1.12	1.09	1.08	1.07	1.07	1.05	1.07	1.10	1.12	1.17	1.33	1.12
1916	1.53	1.40	1.27	1.24	1.21	1.26	1.22	1.30	1.57	2.26	3.87	4.01	1.85
1917	4.15	4.18	3.89	3.21	4.14	4.00	3.17	3.24	2.02	2.02	2.48	2.48	3.25
1918	2.48	2.53	2.58	2.64	2.67	2.57	2.58	2.58	2.58	2.58	2.58	2.58	2.58
1919	2.57	2.49	2.47	2.43	2.38	2.40	2.47	2.76	2.91	3.09	2.57	2.58	2.59
1920	2.57	2.58	2.58	3.85	4.59	7.18	8.24	9.51	8.52	7.78	5.87	4.38	5.64
1921	3.26	2.77	2.63	2.62	2.68	2.52	2.40	2.42	2.37	2.33	2.35	2.26	2.55
1922	2.25	2.20	2.12	2.24	3.11	3.31	4.67	6.13	5.08	4.48	4.11	4.05	3.64
1923	4.38	3.59	3.20	2.84	2.68	2.56	2.40	2.39	2.46	2.28	2.25	2.18	2.77
1924	2.21	2.25	2.15	2.07	2.04	2.03	1.98	1.99	2.02	2.10	2.06	2.06	2.08
1925	2.10	2.04	1.99	1.95	1.97	1.95	1.93	2.04	2.18	2.13	2.26	2.19	2.06
1926	2.18	2.09	2.01	1.92	1.93	1.90	1.91	2.00	2.15	2.70	3.19	2.53	2.21
1927	2.34	2.11	2.06	1.93	1.87	1.85	1.87	2.06	2.07	1.96	1.90	1.90	1.99
1928	1.85	1.86	1.91	1.74	1.73	1.73	1.71	1.74	1.81	1.83	1.85	1.85	1.80
1929	1.85	1.86	1.78	1.69	1.68	1.67	1.70	1.77	1.83	1.90	1.88	1.87	1.79
1930	1.88	1.81	1.75	1.71	1.68	1.68	1.70	1.68	1.75	1.80	1.78	1.78	1.75
1931	1.77	1.77	1.68	1.64	1.60	1.56	1.58	1.58	1.56				

Source: U. S. Geological Survey and U. S. Bureau of Mines.

Prepared by Bituminous Coal Unit
Division of Review, N. R. A.
Under direction of F. E. Berquist

D.Ex. 6

Net Income or Deficit of the Bituminous Coal Industry, Prior to Deductions for Tax, for Specified Years — 1917 - 1934 1/



1/ 1917-1921 U.S. Coal Commission Report from Treasury Department
1925 Assistant Secretary of Treasury
1928-1932 Bureau of Internal Revenue
1933 Commissioner of Internal Revenue-Preliminary. Not Yet Published.

PREPARED BY — Bituminous Coal Unit, Division of Review, NRA under the direction of F.E. Bennett

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[fol. 1056] DEFENDANTS' EXHIBIT 6-A

Net Income or Deficit of the Bituminous Coal Industry Prior to Deduction for Income and Excess Profits Taxes for Specified Years, 1917 to 1933**

According to Treasury Department Data

Year	Total Number Returns	Number Reporting No Net Income	Number Reporting Net Income	Net Income	Deficit	Net Income (or deficit) of Industry
1917 (a)	1,234	85	1,149	$204,564,196	$645,678	$203,918,518
1918 (a)	1,234	128	1,106	150,094,603	1,247,971	148,846,632
1919 (a)	1,234	417	817	72,202,962	9,943,268	62,259,694
1920 (a)	1,234	82	1,152	251,025,514	1,658,135	249,367,379
1921 (a)	1,234	731	503	59,164,099	30,274,905	28,889,194
1925 (b)	3,650	2,585	1,065	40,462,955	62,826,452	−22,363,497*
1928 (c)	2,982 (e)	1,842	863	33,477,073	57,985,403	−24,508,330*
1929 (c)	2,646 (e)	1,535	934	40,068,844	51,890,877	−11,822,033*
1930 (c)	2,356 (e)	1,458	781	25,077,232	67,148,274	−42,071,042*
1931 (c)	2,207 (e)	1,513	582	9,957,000	57,702,000	−47,745,000*
1932 (c)	1,897 (e)	1,575	289	5,956,000	57,123,000	−51,167,000*
1933 (d)	1,996 (e)	1,455	396	7,243,000	54,792,000	−47,549,000*

*Deficit.

**The Industrial classification is based on the predominant business of non-affiliated corporations or of groups of affiliated corporations filing a single return. The business classification, therefore, does not contain solely corporations engaged exclusively in the industries in which they are classified due to the diversified industrial activities of the many corporations and especially to affiliated corporations filing consolidated returns, which latter include the income and deductions of the subsidiary or affiliated concerns.

(a) Data from special compilation of the income tax returns, supplied by the Secretary of the Treasury, and published in the United States Coal Commission report, pages 2680–2683. The figures are based on income tax reports of all companies making such reports for which an unbroken five year record was available.

(b) Data furnished by Assistant Secretary of Treasury.

(c) Data from yearly reports of Bureau of Internal Revenue. "Statistics of Income."

(d) 1933 data from preliminary figures of Bureau of Internal Revenue not yet published.

(e) Includes a small number of inactive corporations.

Compiled by F. G. Tryon, Coal Economics Division, U. S. Bureau of Mines.

DI POSITION OF TOTAL OUTPUT OF BITUMINOUS COAL MINES OF THE UNITED STATES, BY YEARS, 1915-1933

Year	Loaded at mines for shipment		Truck or wagon commercial sales a/		Other sales to local trade, used by employees, or taken by locomotives at tipple a/		Made into coke at mines b/		Used at mines for power and heat		T... mi...
	Net tons	Percent of total	Net tons	Percent of total	Net tons	Percent of total	Net tons	Percent of total	Net tons	Percent of total	N...
1915	379,876,591	85.8			12,353,708	2.8	40,595,446	9.2	9,798,681	2.2	4...
1916	423,666,685	84.3			15,832,633	3.2	52,709,900	10.4	10,310,464	2.1	5...
1917	469,850,975	85.2			19,507,322	3.5	50,315,107	9.1	12,117,159	2.2	5...
1918	503,088,528	86.8			18,681,757	3.2	45,094,089	7.8	12,521,446	2.2	5...
1919	409,148,754	87.8			18,068,578	3.9	27,581,155	5.9	11,061,571	2.4	4...
1920	504,873,060	88.8			21,289,435	3.7	30,608,233	5.4	11,895,955	2.1	5...
1921	382,063,736	91.8			16,135,621	3.9	8,599,476	2.1	9,123,117	2.2	4...
1922	383,677,407	90.9			17,506,149	4.1	13,253,275	3.1	7,831,268	1.9	4...
1923	505,859,295	89.6			22,081,040	3.9	27,859,316	4.9	8,765,011	1.6	5...
1924	441,565,694	91.3			21,111,004	4.3	14,392,159	3.0	6,617,681	1.4	4...
1925	477,172,812	91.8			21,351,223	4.1	15,752,603	3.0	5,776,103	1.1	5...
1926	526,285,997	91.8			23,601,587	4.1	17,751,549	3.1	5,727,852	1.0	5...
1927	480,223,441	92.7			21,889,884	4.2	10,719,633	2.1	4,930,394	1.0	5...
1928	467,347,915	93.3			21,989,624	4.4	6,805,222	1.4	4,602,209	0.9	5...
1929	497,934,454	93.1			23,262,558	4.3	9,128,607	1.7	4,662,974	0.9	5...
1930	437,398,569	93.6			22,121,055	4.7	4,013,915	0.9	3,992,760	0.8	4...
1931	357,278,053	93.5			19,878,462	5.2	1,727,682	0.5	3,205,199	0.8	3...
1932	285,507,819	92.2			20,392,706	6.6	1,028,458	0.3	2,780,589	0.9	3...
1933	306,279,665	91.8	15,462,739	4.6	7,589,672	2.3	1,440,736	0.4	2,857,721	0.9	3...
1934 g/											

Note: Prior to 1924 (with the exception of the year 1921) the output of mines producing less than 1,000 tons a year, sometimes referred to ... mines, was included in the total annual production of coal reported. No canvass of these small mines was made in 1921, which was a ... decreased demand, and beginning with 1924 the canvass was discontinued.

a/ Truck or wagon commercial sales were included with other local sales prior to 1933.

b/ Virtually all the coke produced is shipped out in railroad cars as made.

g/ Data on disposition of output for the year 1934 not yet available.

By P. G. Tryon and W...
Coal Economics Divis...
U. S. Bureau of Mine...

SITION OF TOTAL OUTPUT OF BITUMINOUS COAL MINES OF THE UNITED STATES, BY YEARS, 1915-1933

	Truck or wagon commercial sales[a]		Other sales to local trade, used by employees, or taken by locomotives at tipple [b]		Made into coke at mines [b]		Used at mines for power and heat		Total production
t al	Net tons	Percent of total	Net tons	Percent of total	Net tons	Percent of total	Net tons	Percent of total	Net tons
8			12,353,708	2.8	40,595,446	9.2	9,798,681	2.2	442,624,426
3			15,832,633	3.2	52,709,900	10.4	10,310,464	2.1	502,519,682
2			19,507,322	3.5	50,315,107	9.1	12,117,159	2.2	551,790,563
8			18,681,757	3.2	45,094,089	7.8	12,521,446	2.2	579,385,820
8			18,068,578	3.9	27,581,155	5.9	11,061,571	2.4	465,860,058
8			21,289,435	3.7	30,608,233	5.4	11,895,955	2.1	568,666,683
8			16,135,621	3.9	8,599,476	2.1	9,123,117	2.2	415,921,950
9			17,506,149	4.1	13,253,275	3.1	7,831,268	1.9	422,268,099
6			22,081,040	3.9	27,859,316	4.9	8,765,011	1.6	564,564,662
3			21,111,004	4.3	14,392,159	3.0	6,617,681	1.4	483,686,538
8			21,351,223	4.1	15,752,603	3.0	5,776,103	1.1	520,052,741
6			23,601,587	4.1	17,751,549	3.1	5,727,852	1.0	573,366,985
7			21,889,884	4.2	10,719,633	2.1	4,930,394	1.0	517,763,352
3			21,989,624	4.4	6,805,222	1.4	4,602,209	0.9	500,744,970
1			23,262,558	4.3	9,128,607	1.7	4,662,974	0.9	534,948,593
6			22,121,055	4.7	4,013,915	0.9	3,992,760	.8	467,526,899
5			19,878,462	5.2	1,727,682	0.5	3,205,199	0.8	382,089,396
2			20,392,706	6.6	1,028,458	0.3	2,780,889	0.9	309,709,872
8	15,462,739	4.6	7,589,672	2.3	1,440,736	0.4	2,857,721	0.9	333,630,533

e exception of the year 1921) the output of mines producing less than 1,000 tons a year, sometimes referred to as wagon
the total annual production of coal reported. No canvass of these small mines was made in 1921, which was a year of
beginning with 1924 the canvass was discontinued.

ial sales were included with other local sales prior to 1933.

produced is shipped out in railroad cars as made.

output for the year 1934 not yet available.

By P. G. Tryon and W. H. Young
Coal Economics Division
U. S. Bureau of Mines.

D. Ex. 9

DISTRIBUTION OF
(Compiled from U. S. Bureau of Mines Monthly Coal

Source / Destination	Pennsylvania Fields			Ohio Fields		Michigan Fields	West Virginia Fields			West Virginia Maryland	West Virginia Kentucky	West Virginia, Virginia	Virginia Fields
	Central Pennsylvania	Somerset Meyersdale	Western Pennsylvania	Northern Ohio	Southern Ohio		Panhandle	Northern West Virginia	New River-Winding Gulf	Cumberland Piedmont	Kanawha Logan Kenova-Thacker	Pocahontas Tug River	Southwestern Virginia
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Used at mines for power and heat, not sold	293,150	51,204	752,465	115,160	24,751	49,627	18,720	74,844	100,682	78,819	94,354	145,338	41,244
2. Made into coke at mines, (coke shipped in railroad cars)	754,082	—	6,553,644	—	—	—	—	—	202,745	154,932	446,364	29,266	495,158
3. Local sales by truck and wagon, etc.,	4,013,855	120,874	3,917,425	2,196,821	511,894	10,725	1,360,470	732,794	231,693	148,293	329,870	294,938	91,579
4. Shipped all rail (or by river) to destinations in:													
5. Alabama	—	—	—	—	—	—	—	—	—	—	—	111,154	11,085
6. Arizona	—	—	—	—	—	—	—	—	—	30	—	—	—
7. Arkansas	—	—	—	—	—	—	—	—	—	192	—	—	—
8. California	—	—	—	—	—	—	—	—	—	256	—	—	—
9. Colorado	—	—	—	—	—	—	—	—	—	—	—	—	—
10. District of Columbia	25,083	133,474	2,735	—	—	—	—	54,192	718,858	11,961	63,595	109,658	29,302
11. Delaware	267,359	52,760	23,105	—	—	—	—	59,353	475	93,624	22,000	505	51
12. Florida	—	—	—	—	—	—	—	—	20,582	—	4,051	1,487	33,993
13. Georgia	—	—	—	—	—	—	—	—	3,494	—	4,453	6,763	368,450
14. Idaho	—	—	—	—	—	—	—	—	—	704	—	—	—
15. Illinois (outside Chicago district)	8,382	364	1,626	—	1,974	—	163	11,532	443,904	8,603	520,601	372,217	116,496
16. Indiana (outside Chicago district)	4,500	103	321	56,173	86,148	—	—	44,548	518,457	1,635	3,773,045	688,258	152,699
17. Chicago District	11,516	785	310,018	318	29,547	—	—	67,409	5,205,975	22,709	1,755,503	5,666,362	57,287
18. Iowa	2,731	158	—	—	4,921	—	—	10,954	84,488	1,065	484,230	67,045	70,628
19. Kansas	1,510	—	—	—	—	—	—	899	285	780	933	—	896
20. Kentucky	—	—	—	—	—	—	—	—	94,568	—	433,590	167,539	32,963
21. Louisiana	—	—	—	—	—	—	—	—	—	—	—	—	45
22. Maryland	257,633	543,085	171,457	—	—	—	—	678,442	26,672	770,395	31,171	95,282	30,737
23. Michigan	6,422	2,025	228,775	250,460	500,121	262,305	—	159,250	1,244,225	4,164	7,750,172	2,598,905	385,107
24. Minnesota	1,036	—	—	—	—	—	—	4,464	132,883	3,041	49,556	96,569	17,714
25. Mississippi	—	—	—	—	—	—	—	—	—	—	—	—	—
26. Missouri	5,026	—	—	—	—	—	—	99	97,207	1,794	57,450	7,166	1,321
27. Montana	12	—	—	—	—	—	—	—	—	1,194	—	—	—
28. Nebraska	1,778	—	—	—	—	—	—	226	1,176	319	5,672	369	—
29. Nevada	—	—	—	—	—	—	—	—	—	—	—	—	—
30. New England	2,215,370	723,138	352,197	—	—	—	—	291,101	45,546	227,119	6,552	12,054	789
31. New Jersey	4,388,513	516,835	892,178	—	—	—	—	910,970	913	733,275	75,510	1,143	314
32. New Mexico	—	—	—	—	—	—	—	—	—	—	—	—	—
33. New York	7,220,915	163,088	6,709,414	542,920	—	—	312,429	2,222,661	3,362	99,867	15,352	55,061	758
34. North Carolina	—	—	—	—	—	—	—	—	586,869	—	714,599	430,923	861,954
35. North Dakota	—	—	—	—	—	—	—	—	—	384	—	—	—
36. Ohio	226,444	174,629	13,155,930	5,209,909	2,369,880	—	896,000	2,532,393	1,348,768	4,928	10,225,642	3,986,991	439,361
37. Oklahoma	—	—	—	—	—	—	—	—	—	—	—	—	—
38. Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—
39. Pennsylvania	6,231,446	1,096,015	31,258,430	37,489	—	—	185,579	4,741,433	10,346	1,127,483	305,528	169,949	4,480
40. South Carolina	—	—	—	—	—	—	—	—	53,848	—	178,976	48,958	1,818,898
41. South Dakota	700	48	—	—	—	—	—	2,278	12,644	406	17,224	24,563	1,616
42. Tennessee	—	—	—	—	—	—	—	—	154	192	74	16,651	505,945
43. Texas	—	—	—	—	—	—	—	—	—	1,171	—	—	—
44. Utah	—	—	—	—	—	—	—	—	—	—	—	—	—
45. Virginia	1,380	24,683	265	—	—	—	—	58,846	2,055,986	14,340	570,599	1,096,298	1,049,700
46. Washington	—	—	—	—	—	—	—	—	—	—	—	—	—
47. West Virginia	270	41,008	1,497,424	—	—	—	285,158	885,042	186,456	58,476	949,376	495,860	24,483
48. Wisconsin	2,066	218	3,952	—	801	—	—	5,861	337,124	4,256	103,671	391,772	20,72
49. Wyoming	—	—	—	—	—	—	—	—	—	—	—	—	—
50. Miscellaneous destinations	10,688	1,241	95,384	3,997	—	—	3,478	42,785	2,354	5,353	7,082	12,279	42,01
	5,070,206	2,796,379	1,536,155	—	—	—	—	2,168,864	10,489,105	2,578,634	2,157,023	6,666,822	1,668,98

3. Local sales by truck and wagon, etc.,	4,013,855	120,874	3,917,425	2,196,821	511,894	10,725	1,360,470	732,794	231,693	148,293	329,870	294,938	91,579
4. Shipped all rail (or by river) to destinations in:													
5. Alabama	—	—	—	—	—	—	—	—	—	—	—	111,154	11,085
6. Arizona	—	—	—	—	—	—	—	—	—	30	—	—	—
7. Arkansas	—	—	—	—	—	—	—	—	—	192	—	—	—
8. California	—	—	—	—	—	—	—	—	—	256	—	—	—
9. Colorado	—	—	—	—	—	—	—	—	—	—	—	—	—
10. District of Columbia	25,083	133,474	2,735	—	—	—	—	54,192	718,858	31,961	63,595	109,658	29,302
11. Delaware	267,359	52,760	23,105	—	—	—	—	59,353	475	93,624	22,000	505	51
12. Florida	—	—	—	—	—	—	—	—	20,582	—	4,051	1,487	33,693
13. Georgia	—	—	—	—	—	—	—	—	3,494	—	4,453	6,763	368,450
14. Idaho	—	—	—	—	—	—	—	—	—	704	—	—	—
15. Illinois (outside Chicago district)	8,382	364	1,626	—	1,974	—	163	11,532	443,904	8,603	520,601	372,217	116,496
16. Indiana (outside Chicago district)	4,500	103	321	56,173	86,148	—	—	44,548	518,457	1,635	3,773,045	688,258	152,699
17. Chicago District	11,516	785	310,018	318	29,547	—	—	67,409	5,205,975	22,709	1,755,503	5,666,362	57,287
18. Iowa	2,731	158	—	—	4,921	—	—	10,954	84,488	1,065	484,230	67,045	70,628
19. Kansas	1,510	—	—	—	—	—	—	899	285	780	933	—	896
20. Kentucky	—	—	—	—	—	—	—	—	94,588	—	433,590	167,539	32,963
21. Louisiana	—	—	—	—	—	—	—	—	—	—	—	—	45
22. Maryland	257,633	543,085	171,457	—	—	—	—	678,442	26,672	770,395	31,171	95,282	30,737
23. Michigan	6,422	2,025	228,775	250,460	500,121	262,305	—	159,250	1,244,225	4,164	7,750,172	2,598,905	385,107
24. Minnesota	1,036	—	—	—	—	—	—	4,464	132,883	3,041	49,556	96,569	17,714
25. Mississippi	—	—	—	—	—	—	—	—	—	—	—	—	—
26. Missouri	5,026	—	—	—	—	—	—	99	97,207	1,794	57,450	7,166	1,321
27. Montana	12	—	—	—	—	—	—	—	—	1,194	—	—	—
28. Nebraska	1,778	—	—	—	—	—	—	226	1,176	319	5,672	369	—
29. Nevada	—	—	—	—	—	—	—	—	—	—	—	—	—
30. New England	2,215,370	723,138	352,197	—	—	—	—	291,101	45,546	227,319	6,552	12,054	789
31. New Jersey	4,388,513	516,835	892,178	—	—	—	—	910,970	913	733,275	75,510	1,143	314
32. New Mexico	—	—	—	—	—	—	—	—	—	—	—	—	—
33. New York	7,220,915	163,088	6,709,414	542,920	—	—	312,429	2,222,661	3,362	99,867	15,352	55,061	758
34. North Carolina	—	—	—	—	—	—	—	—	586,869	—	714,559	430,923	861,954
35. North Dakota	—	—	—	—	—	—	—	—	—	384	—	—	—
36. Ohio	226,444	174,629	13,155,930	209,909	2,369,880	—	896,000	2,532,393	1,348,768	4,928	10,225,642	3,986,991	439,361
37. Oklahoma	—	—	—	—	—	—	—	—	—	—	—	—	—
38. Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—
39. Pennsylvania	6,231,446	1,096,015	31,258,430	37,489	—	—	185,579	4,741,433	10,346	1,127,883	305,528	169,949	4,480
40. South Carolina	—	—	—	—	—	—	—	—	53,848	—	178,976	48,958	1,818,898
41. South Dakota	700	48	—	—	—	—	—	2,278	12,644	406	17,224	24,563	1,616
42. Tennessee	—	—	—	—	—	—	—	—	154	192	74	16,651	505,945
43. Texas	—	—	—	—	—	—	—	—	—	1,471	—	—	—
44. Utah	—	—	—	—	—	—	—	—	—	—	—	—	—
45. Virginia	1,380	24,683	265	—	—	—	—	58,846	2,055,986	14,140	570,599	1,096,298	1,049,700
46. Washington	—	—	—	—	—	—	—	—	—	—	—	—	—
47. West Virginia	270	41,008	1,497,424	—	—	—	285,158	885,042	186,456	58,476	949,376	495,860	24,483
48. Wisconsin	2,066	218	3,952	—	801	—	—	5,851	337,124	4,256	103,671	391,772	20,726
49. Wyoming	—	—	—	—	—	—	—	—	—	—	—	—	—
50. Miscellaneous destinations	10,688	1,241	95,384	3,997	—	—	3,478	42,785	2,354	5,353	7,082	12,279	42,013
51. Shipped to tidewater piers[a]	5,070,526	2,796,379	1,516,355	—	—	—	—	2,168,568	10,882,198	1,578,674	2,157,923	6,568,911	1,668,202
52. Shipped to Great Lakes piers[a]	180,126	—	8,117,874	3,350,040	378,139	—	821,442	1,510,431	1,398,099	2,682	10,152,854	6,273,556	162,311
53. Exported by rail	1,691,046	14,987	1,534,242	1,477,844	2,777	—	61,517	897,751	51,225	5,186	236,128	203,549	11,995
54. Railroad fuel delivered by all-rail routes	12,275,761	894,288	14,639,727	5,027,210	2,070,435	482,212	2,369,681	9,996,179	600,444	759,070	9,031,475	526,074	2,935,618
55. Total accounted for	45,169,326	7,351,389	91,734,943	18,268,341	5,981,388	804,869	6,334,637	28,165,305	26,704,725	5,946,672	50,575,135	30,773,413	11,485,678

a/ See also West Virginia portions of the borderline fields in columns (10), (11) and (12). The total production for West Virginia was 138,518,855 tons.
b/ The total production of the State of Maryland, all of which is included in this field, was 2,649,114 tons.
c/ See also Virginia portion of the borderline field in column 12. The total production of Virginia was 12,748,306 tons.
d/ Includes Virginia Semianthracite.
e/ See also Kentucky portions of the borderline fields in columns (11) and (13). The total production for Kentucky was 60,462,600 tons.
f/ The total production of the State of Tennessee was 5,405,464 tons and the total production of the State of Georgia was 44,636 tons, all of which is included in this field.
g/ Coal consigned to tidewater and Great Lakes Piers is re-shipped by water or used as steamship fuel.

CRIPTION OF BITUMINOUS COAL PRODUCED IN 1929 ACCORDING TO THE RECORDS OF THE U. S. BUREAU OF MINES, GROUPED BY STATE OF ORIGIN
Monthly Coal Distribution Reports with additional data for the small production of North Carolina, Arizona, California, Idaho, Nevada, Oregon, and South Dakota)

Virginia Fields[a]	Kentucky Fields[a]					Kentucky Tennessee Georgia[a]	North Carolina Field	Alabama Fields	Illinois Fields	Indiana Fields	Iowa Fields	Kansas and Missouri Fields	Arkansas Fields	Oklahoma Fields	Texas Fields	North Dakota Fields	Montana Fields	Wyoming Fields
Southwestern Virginia[a]	West Kentucky	Northeastern Kentucky	McRoberts	Hazard	Harlan-Benham	Southeastern Kentucky Tennessee Georgia												
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
41,244	231,701	141,966	8,993	10,047	33,835	98,416	2,700	166,799	953,932	326,235	57,239	152,992	9,515	46,339	14,237	38,502	47,831	187,55
495,158	—	—	—	—	—	186,032	---	—	—	—	—	—	—	—	—	—	—	—
91,579	423,358	84,050	25,199	116,655	96,989	137,810	3,200	317,675	3,991,337	630,524	800,029	750,024	26,020	125,830	11,066	380,640	137,790	131,57
11,085	4,850	—	50	50	55,050	118,923	---	9,118,794	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
—	368,581	—	—	50	50	400	---	93,459	39,284	—	—	273	102	818	—	—	—	—
—	—	—	—	—	—	—	---	—	—	—	—	1,335	204,808	22,632	—	—	—	—
29,302	—	50	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
51	—	89	—	—	—	—	---	—	—	—	—	120	—	—	—	—	—	55,4
33,993	—	5,732	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	16,16
368,450	400	7,638	—	—	63,800	37,784	---	341,334	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1,067,371	1,104,906	---	459,463	—	—	—	—	—	—	—	—	—	—
116,496	1,418,172	267,203	121,925	437,172	343,294	47,674	---	—	—	—	—	—	—	—	—	—	—	—
152,659	382,911	602,669	284,929	722,592	696,517	251,746	---	2,268	14,027,684	1,079,958	51	1,240	1,895	412	—	—	20,685	91,13
57,287	925,018	970,910	707,255	259,355	3,581,284	97,949	---	—	684,705	5,680,664	—	—	—	—	—	—	—	—
70,628	941,391	258,239	76,266	295,417	317,874	119,035	---	—	9,120,428	3,464,627	—	—	—	—	—	—	—	—
896	81	—	—	4,230	183	39	---	—	2,815,630	483,502	1,704,315	26,182	76,534	41,701	—	—	—	—
32,963	1,147,027	525,497	223,600	398,200	707,200	462,976	---	495	137,299	3,057	3,639	1,054,426	190,028	350,060	—	29	2,756	20,3
45	246,020	—	—	—	300	55	---	293,108	3,975	—	—	—	7,725	1,860	—	—	—	21,4
30,737	—	46	—	—	—	—	---	50	—	49,739	—	—	—	—	—	—	—	—
385,107	84,196	2,198,783	537,386	1,212,866	2,064,411	373,566	---	—	34,568	39,307	2,920	654	96,881	32,133	—	—	—	—
17,714	192,058	45,679	52,097	17,301	43,193	11,578	---	884,737	767,781	—	—	—	47	—	—	—	—	—
—	483,041	—	50	—	150	3,027	---	40,256	5,779	86,046	190,478	2,358,065	333,880	244,271	—	37,546	8,078	2,56
1,321	635,985	212,879	5,720	2,331	8,029	9,217	---	—	5,884,713	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	---	—	—	26,735	4,235	842,757	269,163	211,307	—	538	736,760	384,85
—	119,802	1,481	1,875	1,389	5,966	670	---	—	596,666	—	—	—	—	—	—	—	313	588,78
—	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	2,53
789	—	318	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
314	—	44	—	—	—	—	---	—	—	—	—	—	153	1,181	—	—	—	—
—	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
758	—	28,806	—	—	—	—	---	—	2,799	3,190	—	—	—	—	—	—	—	—
861,954	—	31,759	—	—	—	—	---	750	—	—	—	—	—	—	—	—	—	—
—	4,989	—	—	—	273,550	315,723	4,093	—	—	—	—	—	—	—	—	1,373,565	47,082	15,29
439,361	—	1,411,480	589,217	1,418,548	1,537,937	319,229	---	56	—	—	—	12,060	105,805	945,484	—	—	—	—
—	—	—	—	—	—	—	---	1,743	—	—	—	—	—	—	—	—	72	58,87
4,480	—	9,289	101	9,845	408	—	---	—	172,048	2,445	—	82	10,503	4,215	—	—	—	—
1,818,898	—	59,492	—	—	133,900	104,210	---	145,060	30,580	—	—	—	79	101	—	30,201	102,928	194,44
1,616	45,864	18,542	6,693	3,124	12,959	7,911	---	82,506	—	—	—	2,788	31,221	279,291	967,611	—	—	—
505,945	2,129,650	3,611	6,750	13,950	323,050	2,406,572	---	—	—	—	—	—	—	—	—	—	—	40,30
—	13,700	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
049,700	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
—	—	7,301	—	50	850	—	---	—	846,811	308,799	—	—	699	102	—	38,019	—	163,4
24,483	—	—	—	—	—	—	---	—	—	—	—	46	—	—	—	—	—	—
20,726	410,896	4,910	—	—	—	—	---	—	11,595	175,042	—	—	—	—	—	39	—	—
—	—	67,633	37,426	22,064	39,499	4,645	---	—	—	—	—	—	—	—	—	—	158	399,4
42,013	106,666	2,564	50	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
668,202	—	748,845	—	—	50	—	---	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	---	723,305	—	—	—	—	—	—	—	—	—	—

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31
	41,244	231,701	141,966	8,923	10,047	33,835	98,416	2,700	166,799	953,932	326,235	57,239	152,992	9,515	46,339	14,237	38,902	47,831	187.
	495,158	—	—	—	—	—	186,032	---	—	—	—	—	—	—	—	—	—	—	—
	91,579	423,358	84,050	25,199	116,655	96,989	137,810	3,200	317,675	3,991,337	630,524	800,029	750,024	26,020	125,830	11,066	380,640	137,790	131.
	11,085	4,850	—	50	50	55,050	118,923	---	9,118,794	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	---	—	—	—	—	273	102	818	—	—	—	—
	—	368,581	—	—	50	50	400	---	93,459	39,284	—	—	1,335	204,808	22,632	—	—	—	—
	—	—	—	—	---	—	—	---	—	—	—	—	—	—	—	—	—	—	55.
	—	—	—	—	—	—	—	---	—	—	—	—	120	—	—	—	—	—	16.
	29,302	—	50	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
	51	—	89	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
	33,993	—	5,732	—	—	63,800	37,784	---	341,334	—	—	—	—	—	—	—	—	—	—
	348,450	400	7,638	—	—	1,067,371	1,104,906	---	459,463	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	20,685	91.
	116,496	1,418,172	267,203	121,925	437,172	343,294	47,674	---	2,268	14,027,684	1,079,958	51	1,240	1,895	412	—	—	—	—
	152,659	382,911	602,669	284,929	722,592	696,517	251,746	---	—	684,705	5,680,664	—	—	—	—	—	—	—	—
	57,287	925,018	970,910	707,255	259,355	3,581,284	97,949	---	—	9,120,428	3,464,627	—	—	—	—	—	—	—	—
	70,628	941,391	258,239	76,266	295,417	317,874	119,035	---	—	2,815,630	483,502	1,704,315	26,182	76,534	41,701	—	29	2,756	20.
	896	81	—	—	4,230	183	39	---	—	137,299	3,057	3,639	1,054,426	190,028	350,060	—	—	—	21.
	32,963	1,147,027	523,497	223,600	398,200	707,200	462,976	---	495	—	—	—	—	—	—	—	—	—	—
	45	246,020	—	—	—	300	55	---	293,108	3,975	—	—	—	7,725	1,860	—	—	—	—
	30,737	—	46	—	—	—	—	---	50	—	—	—	—	—	—	—	—	—	—
	385,107	84,196	2,198,783	537,386	1,212,866	2,064,411	373,566	---	—	34,568	49,739	—	—	—	—	—	—	—	—
	17,714	192,058	45,679	52,097	17,301	43,193	11,578	---	—	767,781	39,307	2,920	654	96,881	32,133	—	37,546	8,078	2
	—	483,041	—	50	---	150	3,027	---	884,737	5,779	—	—	—	47	—	—	—	—	—
	1,321	635,985	212,879	5,720	2,331	8,029	9,217	---	40,256	5,884,713	86,046	190,478	2,358,065	333,880	244,272	—	—	—	2
	—	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	538	796,760	384
	—	119,802	1,481	1,875	1,389	5,966	670	---	—	596,666	26,735	4,235	842,757	269,163	211,307	—	—	313	588
	—	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	2
	789	—	318	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
	314	—	44	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	---	—	—	—	—	—	153	1,181	—	—	—	—
	758	—	28,806	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
	861,954	—	31,759	—	—	273,550	315,723	4,093	—	—	—	—	—	—	—	—	—	—	—
	—	4,989	—	—	—	—	—	---	—	2,799	3,190	—	—	—	—	—	1,373,565	47,082	15
	439,361	—	1,411,480	589,217	1,418,548	1,537,937	319,229	---	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	---	750	—	—	—	12,060	105,805	945,484	—	—	—	—
	—	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	72	58
	4,480	—	9,289	101	9,845	408	—	---	56	—	—	—	—	—	—	—	—	—	—
	1,818,898	—	59,492	—	—	133,900	104,210	---	1,743	—	—	—	—	—	—	—	—	—	—
	1,616	45,864	18,542	6,693	3,124	12,959	7,911	---	—	172,048	2,445	—	82	10,903	4,215	—	30,201	102,928	194
	505,945	2,129,690	3,611	6,750	13,950	323,050	2,406,572	---	145,060	30,580	—	—	—	79	101	—	—	—	—
	—	13,700	—	—	—	—	—	---	82,506	—	—	—	2,788	31,221	279,291	967,611	—	—	—
	—	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	40
	1,049,700	—	7,301	—	50	850	—	---	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	---	—	—	—	—	—	—	—	—	—	—	—
	24,483	—	4,910	—	—	—	—	---	—	—	—	—	—	—	—	—	—	38,019	163
	20,726	410,896	67,633	37,426	22,064	39,499	4,645	—	—	846,811	308,799	—	—	659	102	—	39	—	—
	—	—	—	—	—	—	—	---	—	—	—	—	46	—	—	—	—	158	395
	42,013	106,666	2,564	50	—	50	—	---	—	11,595	175,042	—	—	—	—	—	—	—	—
	1,668,202	—	748,845	—	—	—	—	—	723,305	—	—	—	—	—	—	—	—	—	—
	162,311	—	2,533,791	854,165	711,115	2,596,727	161,483	---	---	---	—	---	---	—	—	—	—	—	—
	11,995	—	183,365	67,175	43,935	26,167	6,985	—	—	—	—	—	—	—	—	1,252	—	—	
	2,935,618	4,236,730	225,690	229,477	832,291	626,337	3,685,848	42,187	5,046,013	20,119,355	6,108,556	1,567,446	1,854,494	402,275	1,516,722	106,502	16,434	2,213,106	4,3
	11,485,678	14,553,087	10,658,351	3,836,399	6,532,577	14,656,930	10,074,409	52,180	17,717,871	60,246,969	18,468,426	4,330,352	7,057,538	1,767,293	3,824,459	1,100,668	1,877,494	3,415,578	6,7

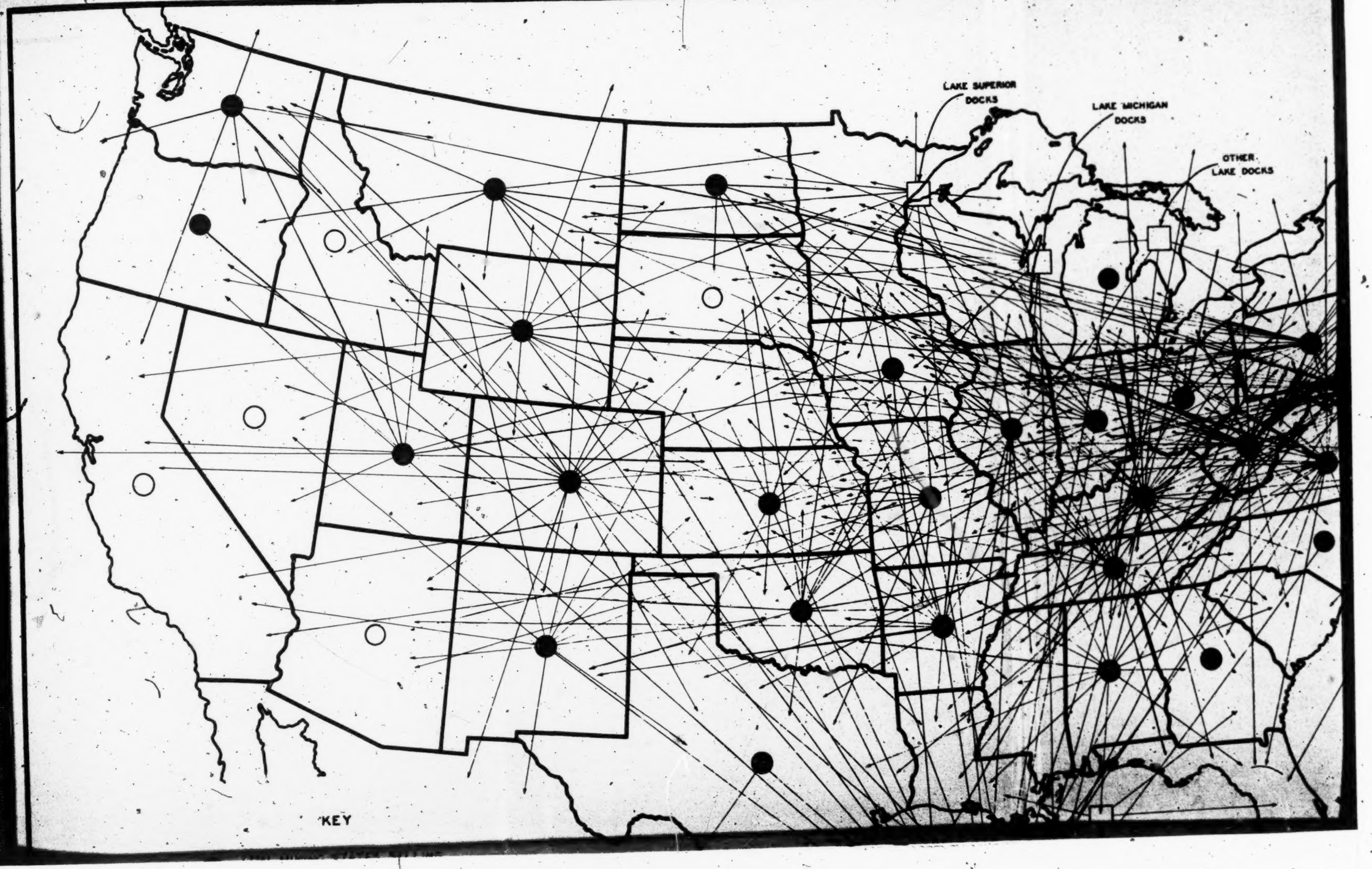
GROUPED BY STATE OF ORIGIN
Alabama, California, Idaho, Nevada, Oregon, and South Dakota)

Alabama Fields	Illinois Fields	Indiana Fields	Iowa Fields	Kansas and Missouri Fields	Arkansas Fields	Oklahoma Fields	Texas Fields	North Dakota Fields	Montana Fields	Wyoming Fields	Utah Fields	Colorado Fields	New Mexico Fields	Washington Fields	Ariz., Calif., Idaho, Nev., Ore., S. Dak.	Total	
(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	
66,799	953,932	326,235	57,239	152,992	9,515	46,339	14,237	38,502	47,831	187,597	16,678	183,746	56,570	33,342	332	4,659,902	(1)
—	—	—	—	—	—	—	—	—	—	—	23,361	248,129	—	34,894	—	9,128,607	(2)
17,675	3,991,337	630,524	800,029	750,024	26,020	125,630	11,066	380,640	137,790	131,578	47,955	824,045	51,228	153,472	24,936	23,252,645	(3)
																	(4)
18,794	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9,419,956	(5)
—	—	—	—	273	102	818	—	—	—	—	—	32,358	331,354	—	—	364,935	(6)
93,459	39,284	—	—	1,335	204,808	22,632	—	—	—	—	—	—	—	—	—	730,791	(7)
—	—	—	—	—	—	—	—	—	—	55,482	467,873	17,678	46,267	248	—	587,804	(8)
—	—	—	—	120	—	—	—	—	—	16,164	6,018	4,618,169	23,212	—	—	4,663,683	(9)
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,168,908	(10)
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	519,321	(11)
41,334	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	508,763	(12)
59,463	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,022,938	(13)
—	—	—	—	—	—	—	—	—	20,685	91,137	715,226	641	—	11,458	4,200	844,051	(14)
2,268	14,027,684	1,079,958	51	1,240	1,895	412	—	—	—	—	—	—	—	—	—	19,234,810	(15)
—	684,705	5,680,664	—	—	—	—	—	—	—	—	—	—	—	—	—	14,632,580	(16)
—	9,120,428	3,464,627	—	—	—	—	—	—	—	—	—	—	—	—	—	32,254,255	(17)
—	2,815,630	483,502	1,704,315	26,182	76,534	41,701	—	29	2,756	20,362	84	15,670	—	—	—	7,921,207	(18)
—	137,299	3,057	3,639	1,054,426	190,028	350,060	—	—	—	21,412	24,001	525,908	48,319	—	—	2,367,985	(19)
495	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,191,675	(20)
93,108	3,975	—	—	—	7,725	1,860	—	—	—	—	—	—	—	—	—	553,088	(21)
50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,604,970	(22)
—	34,568	49,739	—	—	—	—	—	—	—	—	—	—	—	—	—	19,947,446	(23)
—	767,781	39,307	2,920	654	96,881	32,133	—	37,546	8,078	2,568	—	677	—	—	—	1,655,714	(24)
84,737	5,779	—	—	—	47	—	—	—	—	—	—	—	—	—	—	1,376,831	(25)
40,256	5,884,713	86,046	190,478	2,358,065	333,880	244,271	—	—	—	2,752	—	1,108	594	—	—	10,186,387	(26)
—	—	—	—	—	—	—	—	538	796,760	384,859	82,986	194	—	1,449	—	1,267,992	(27)
—	596,666	26,735	4,235	842,757	269,163	211,307	—	—	313	588,788	35,524	866,495	6,223	—	—	3,588,929	(28)
—	—	—	—	—	—	—	—	—	—	2,537	334,319	412	27	—	—	337,295	(29)
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,874,384	(30)
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,519,695	(31)
—	—	—	—	—	153	1,181	—	—	—	—	—	59,581	407,216	—	—	468,131	(32)
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,374,033	(33)
—	2,799	3,190	—	—	—	—	—	1,373,565	47,082	15,295	—	—	—	—	—	3,219,430	(34)
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,447,304	(35)
750	—	—	—	12,060	105,805	945,484	—	—	—	—	—	52,012	742	—	—	45,847,286	(36)
—	—	—	—	—	—	—	—	—	72	58,872	199,351	343	—	27,951	—	1,116,853	(37)
56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	286,589	(38)
1,743	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45,187,477	(39)
—	172,048	2,445	—	82	10,503	4,215	—	30,201	102,928	194,445	—	50,050	—	—	200	2,400,025	(40)
45,060	30,580	—	—	—	79	101	—	—	—	—	—	—	—	—	—	721,689	(41)
82,506	—	—	—	2,788	31,221	279,291	967,611	—	—	—	—	265,612	191,390	—	—	5,582,419	(42)
—	—	—	—	—	—	—	—	—	—	40,303	2,139,022	619	—	—	—	1,835,390	(43)
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,179,944	(44)
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,880,098	(45)
—	—	—	—	—	—	—	—	—	38,019	163,481	311,757	693	—	1,202,141	—	1,716,891	(46)
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,428,463	(47)
—	846,811	308,799	—	—	659	102	—	39	—	—	—	—	—	—	—	2,609,026	(48)
—	—	—	—	46	—	—	—	—	158	399,469	390	81,244	329	—	—	481,636	(49)
—	11,595	175,042	—	—	—	—	—	—	—	—	—	—	—	—	—	522,621	(50)

799	953,932	320,455	97,259	852,952	9,949	48,559	14,457	34,958	47,954	47,954	—	23,361	248,129	—	34,894	—	9,128,607	(2)
	—	—	—	—	—	—	—	—	—	—	—						23,252,645	(3)
675	3,991,337	630,524	800,029	750,024	26,020	125,830	11,066	380,640	137,790	131,578	47,955	824,049	51,228	153,472	24,936			(4)
794	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		9,419,956	(5)
	—	—	—	273	102	818	—	—	—	—	—	32,358	331,354	—	—		364,935	(6)
459	39,284	—	—	1,335	204,808	22,632	—	—	—	—	—	—	—	—	—		730,751	(7)
	—	—	—	—	—	—	—	—	—	55,482	467,873	17,678	46,267	248	—		587,804	(8)
	—	—	—	120	—	—	—	—	—	16,164	6,018	4,618,169	23,212	—	—		4,663,683	(9)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		1,168,908	(10)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		519,321	(11)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		508,763	(12)
334	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		3,022,938	(13)
463	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		844,051	(14)
	—	—	—	—	—	—	—	—	20,685	91,137	715,226	641	—	11,458	4,200		19,234,810	(15)
268	14,027,684	1,079,958	51	1,240	1,895	412	—	—	—	—	—	—	—	—	—		14,632,580	(16)
	684,705	5,680,664	—	—	—	—	—	—	—	—	—	—	—	—	—		32,254,255	(17)
	9,120,428	3,464,627	—	—	—	—	—	—	—	—	—	—	—	—	—		7,921,207	(18)
	2,815,690	483,502	1,704,315	26,182	76,534	41,701	—	29	2,756	20,362	84	15,670	—	—	—		2,367,985	(19)
	137,299	3,057	3,639	1,054,426	190,028	350,060	—	—	—	21,412	24,001	525,908	48,319	—	—		4,191,675	(20)
495	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		553,088	(21)
108	3,975	—	—	—	7,725	1,860	—	—	—	—	—	—	—	—	—		2,604,970	(22)
50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		19,947,446	(23)
	34,568	49,739	—	—	—	—	—	—	—	—	—	—	—	—	—		1,655,714	(24)
	767,781	39,307	2,920	654	96,881	32,133	—	37,546	8,078	2,568	—	677	—	—	—		1,376,831	(25)
737	5,779	—	—	—	47	—	—	—	—	—	—	—	—	—	—		10,186,387	(26)
256	5,884,713	86,046	190,478	2,358,065	333,880	244,271	—	—	—	2,752	—	1,108	594	—	—		1,267,992	(27)
	—	—	—	—	—	—	—	538	796,760	384,859	82,986	194	—	1,449	—		3,588,929	(28)
	596,666	26,735	4,235	842,757	269,163	211,307	—	—	313	588,788	35,524	866,495	6,223	—	—		337,295	(29)
	—	—	—	—	—	—	—	—	—	2,537	334,319	412	27	—	—		3,874,384	(30)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		7,519,695	(31)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		468,131	(32)
	—	—	—	—	153	1,181	—	—	—	—	—	59,581	407,216	—	—		17,374,033	(33)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		3,219,430	(34)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		1,447,304	(35)
	2,799	3,190	—	—	—	—	—	1,373,565	47,082	15,295	—	—	—	—	—		45,847,286	(36)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		1,116,853	(37)
750	—	—	—	12,060	105,805	945,484	—	—	—	—	—	52,012	742	—	—		286,589	(38)
	—	—	—	—	—	—	—	—	72	58,872	199,351	343	—	27,951	—		45,187,477	(39)
56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		2,400,025	(40)
743	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		721,689	(41)
	172,048	2,445	—	82	10,503	4,215	—	30,201	102,928	194,445	—	50,050	—	—	200		5,582,419	(42)
060	30,580	—	—	—	79	101	—	—	—	—	—	—	—	—	—		1,835,590	(43)
506	—	—	—	2,788	31,221	279,291	967,611	—	—	40,303	2,139,022	265,612	191,390	—	—		2,179,944	(44)
	—	—	—	—	—	—	—	—	—	—	—	619	—	—	—		4,870,098	(45)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		1,716,091	(46)
	—	—	—	—	—	—	—	—	38,019	163,481	311,757	693	—	1,202,141	—		4,428,463	(47)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		2,609,020	(48)
	846,811	308,799	—	—	699	102	—	39	—	—	—	—	—	—	—		481,636	(49)
	—	—	—	46	—	—	—	—	158	399,469	390	81,244	329	—	—		522,621	(50)
	11,595	175,042	—	—	—	—	—	—	—	—	—	—	—	—	—			
305	—	—	—	—	—	—	—	—	—	—	36,260	—	—	138,731	—		36,054,877	(51)
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		39,204,835	(52)
	—	—	—	—	—	—	1,252	—	—	696	—	375	52,539	14,064	—		6,604,800	(53)
013	20,119,355	6,108,556	1,567,446	1,854,494	402,275	1,516,722	106,502	16,434	2,213,106	4,373,150	709,654	2,222,547	1,413,506	887,896	3,640		120,048,030	(54)
871	60,246,969	18,468,426	4,330,352	7,057,538	1,767,293	3,824,499	1,100,668	1,877,494	3,415,578	6,750,947	5,150,459	10,068,310	2,629,516	2,505,646	33,308		536,604,788	(55)

By W. H. Young and F. G. Tryon
Coal Economics Division,
U. S. Bureau of Mines,
October 21, 1935.

THE INTERSTATE MOVEMENT OF BITUMINOUS COAL IN 1929, AS SHOWN BY THE REPORTS OF U. S. BUR



DOCKS

OTHER LAKE DOCKS

KEY

COAL MINING STATES SELLING IN INTERSTATE COMMERCE

UNIMPORTANT COAL MINING STATES NOT SELLING IN INTERSTATE COMMERCE

RESHIPMENTS BY LAKES OR TIDEWATER

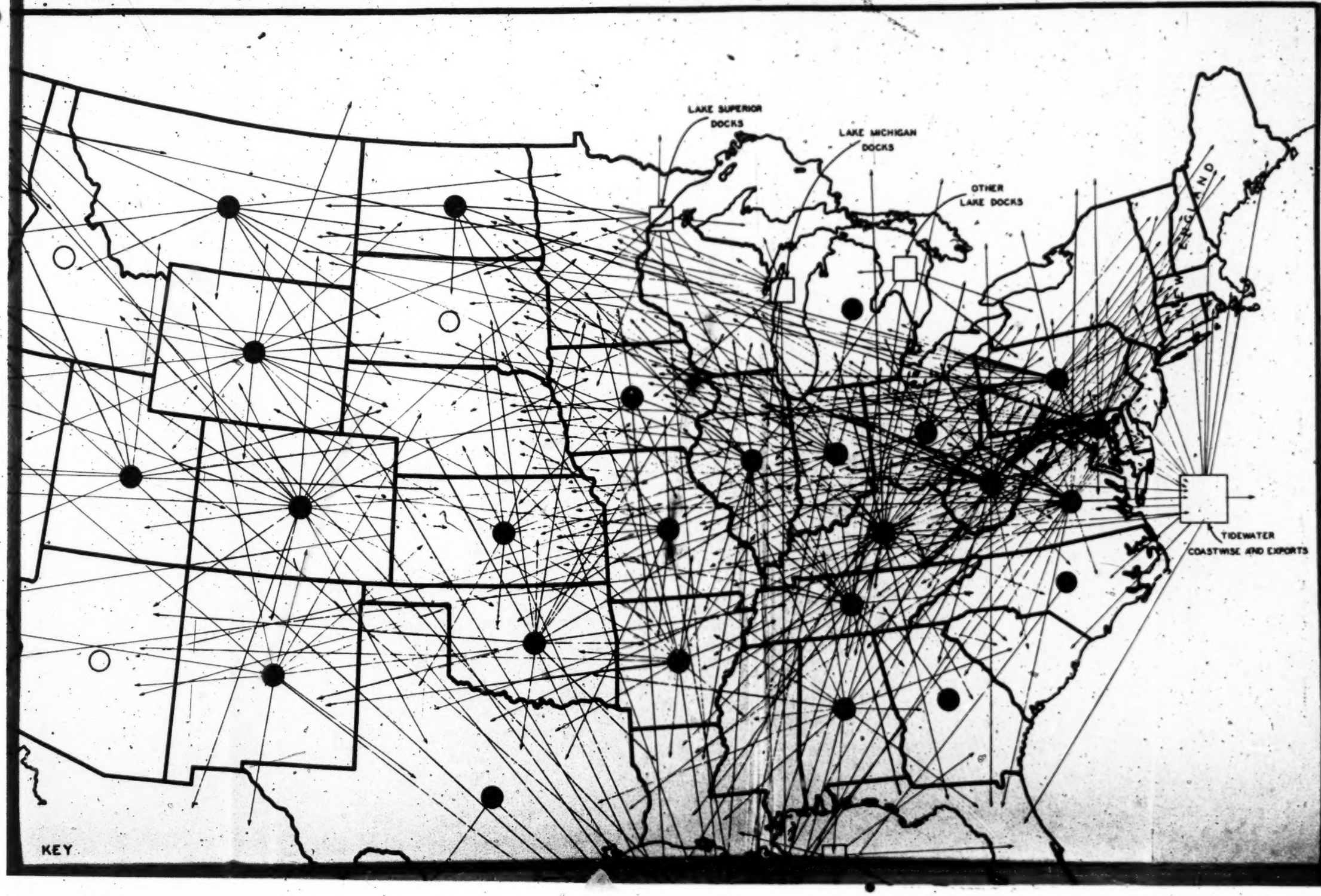
TIDEWATER COASTWISE AND EXPORTS

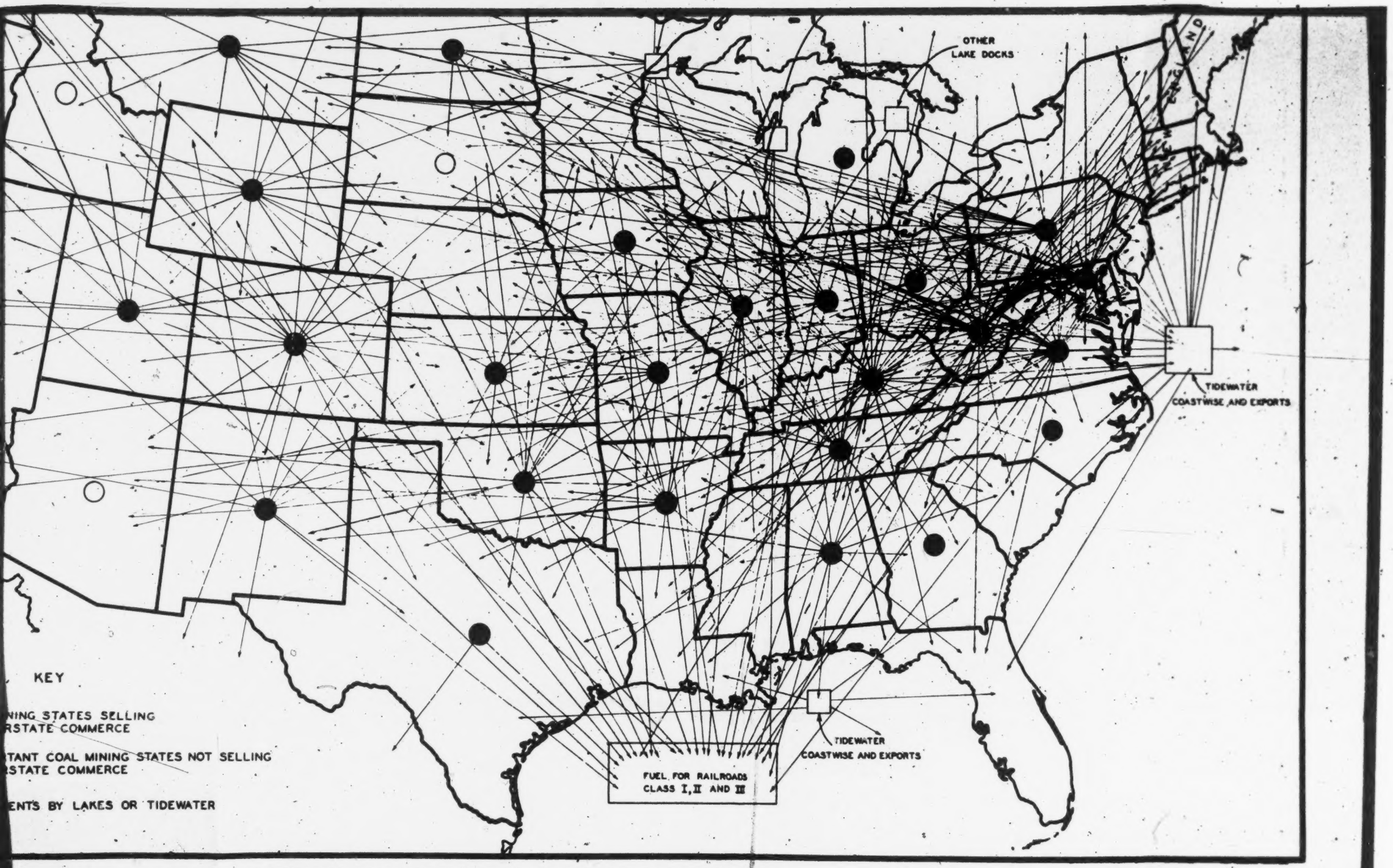
FUEL FOR RAILROADS CLASS I, II AND III

Drafting by S. L. Johnson

[illegible] IS USED AS THE CONSUMING AREA FOR THE SHIPMENTS FROM KENTUCKY AND VIRGINIA. THE DESIGNATION OF GRAIN AND SEED HOUSE.

OVEMENT OF BITUMINOUS COAL IN 1929, AS SHOWN BY THE REPORTS OF U.S. BUREAU OF MINES D. Ex. 10

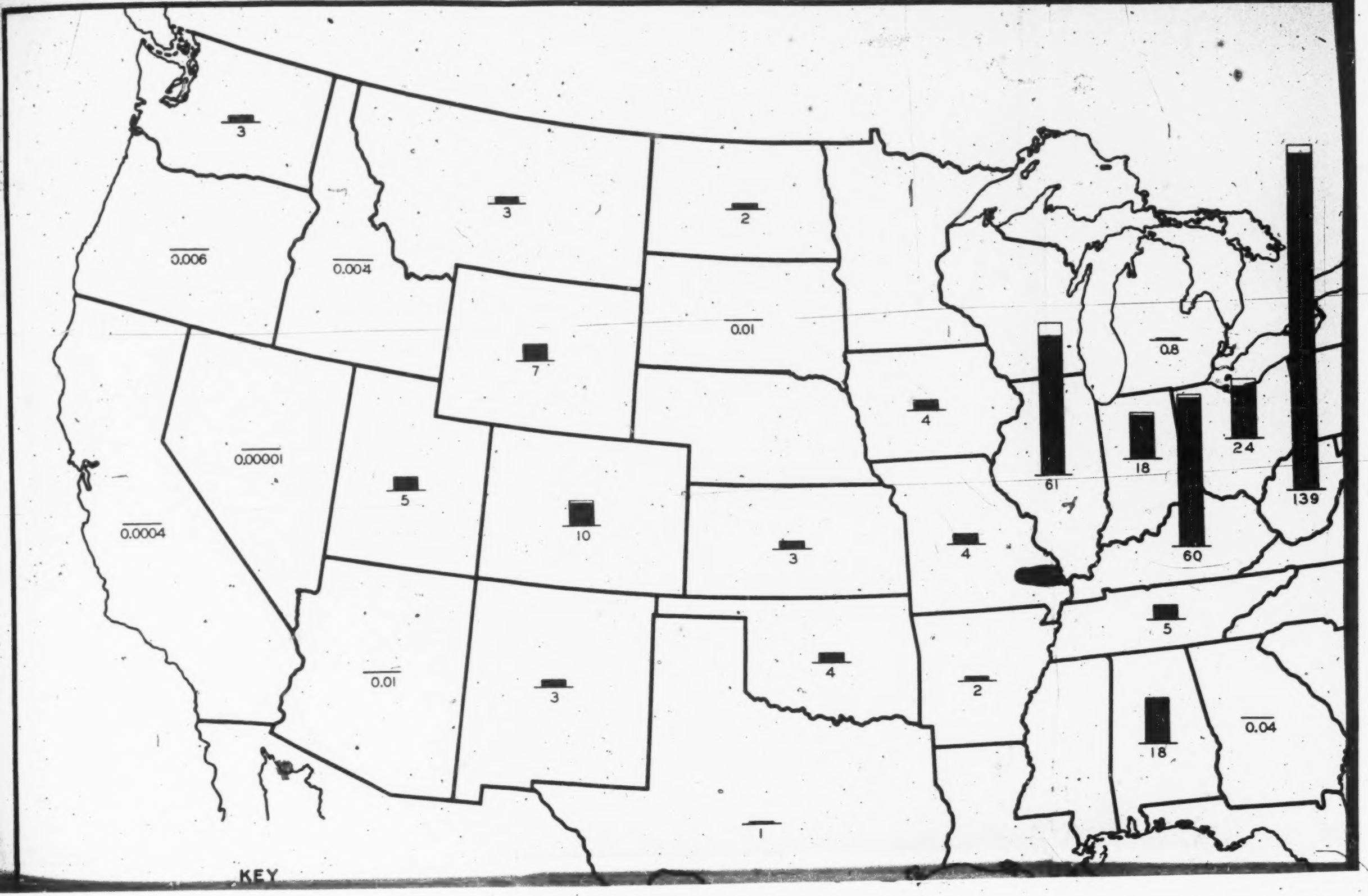


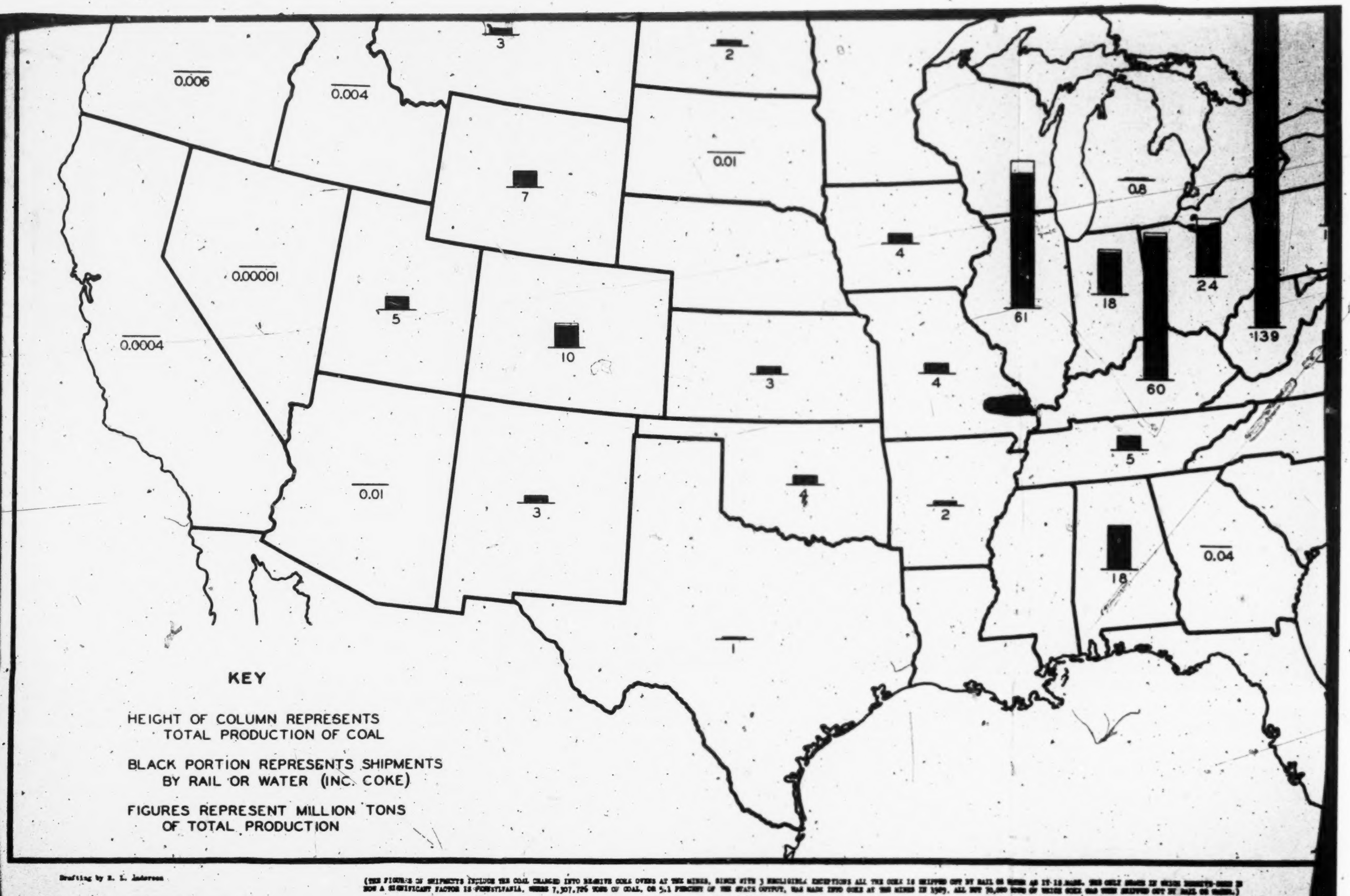


NEW ENGLAND IS TREATED AS ONE CONSUMING AREA FOR THE SHIPMENTS FROM KENTUCKY AND VIRGINIA, THE DESTINATION BY STATES NOT BEING KNOWN.

Data by F. G. Tryon and T. H. Tong
Coal Economics Division
U. S. Bureau of Mines
October 10, 1939

PRODUCTION OF BITUMINOUS COAL AND TOTAL RAIL (OR WATER) SHIPMENTS, BY STA

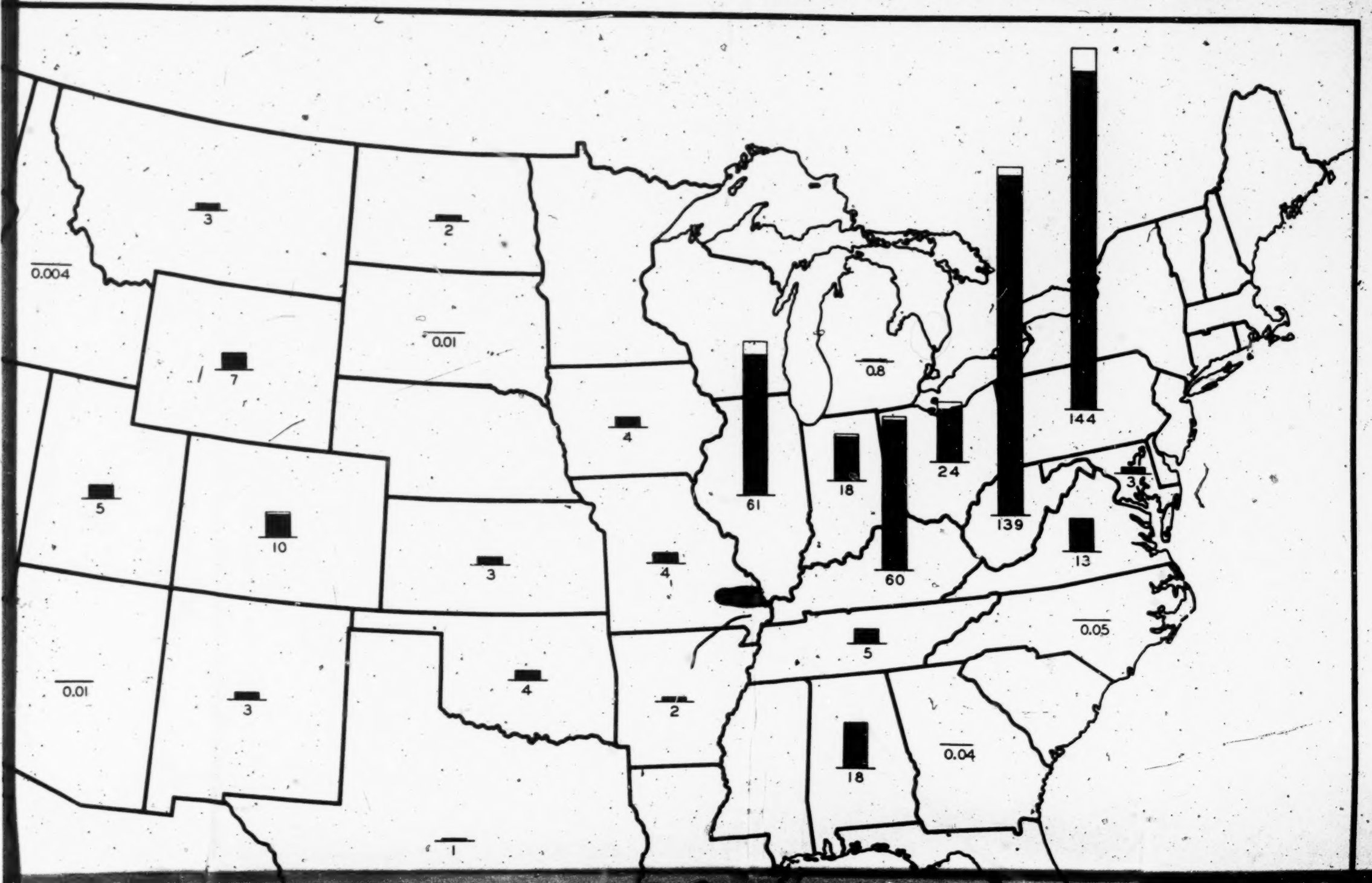


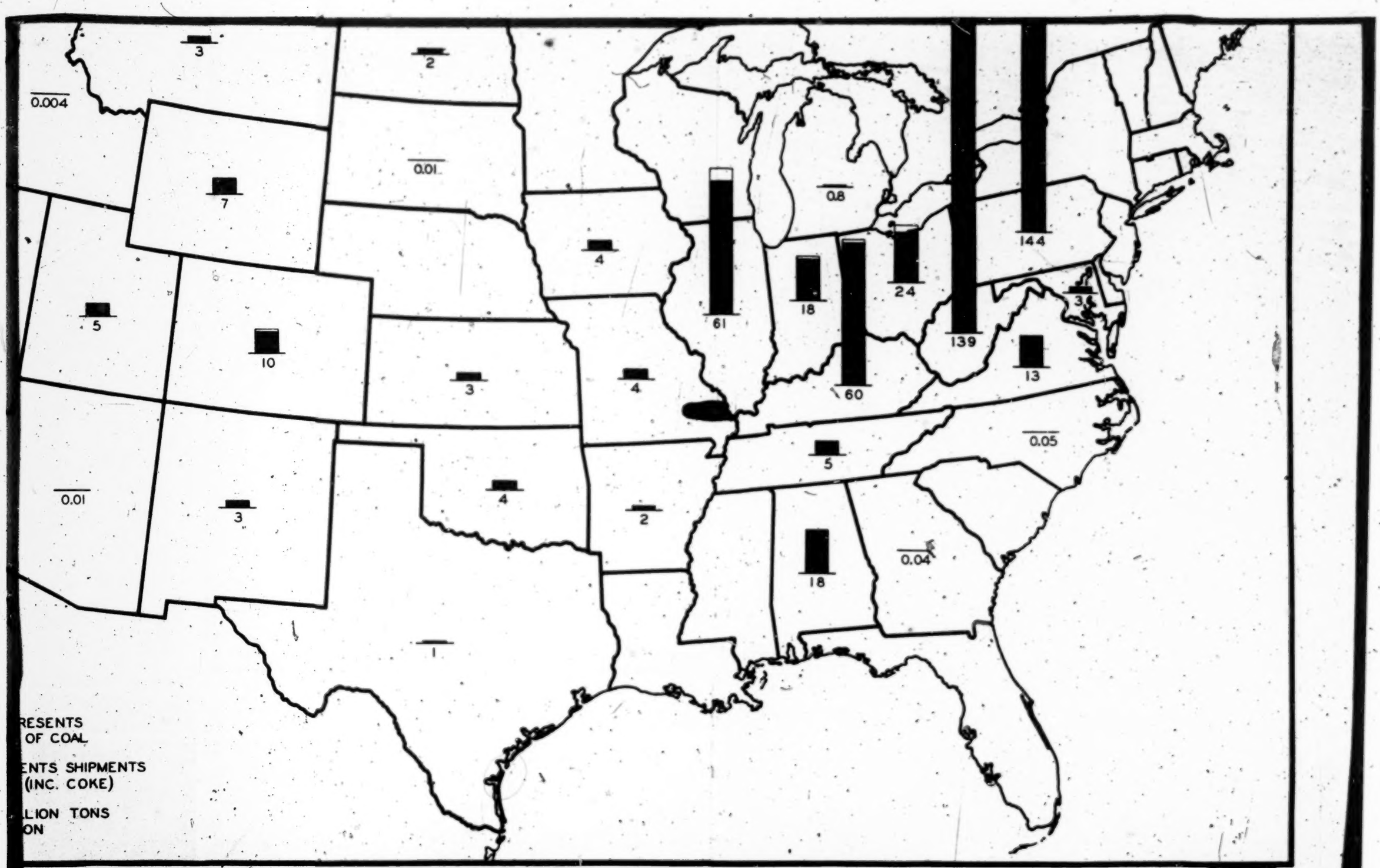


Drafting by R. L. Anderson

(THE FIGURES OF SHIPMENTS INCLUDE THE COAL CHARGED INTO BEEHIVE COKE OVENS AT THE MINES, SINCE WITH 3 EXCLUSIONAL EXCEPTIONS ALL THE COKE IS SHIPPED OUT BY RAIL OR WATER AS IT IS MADE. THIS GOLF SHAPE IT WHICH REMOVES COKE IS NOW A SIGNIFICANT FACTOR IN PENNSYLVANIA, WHERE 7,307,796 TONS OF COAL, OR 5.1 PERCENT OF THE STATE OUTPUT, WAS MADE INTO COKE AT THE MINES IN 1949. ALL BUT 30,000 TONS OF WHICH COKE WAS THEN SHIPPED OUT BY RAIL OR WATER.)

OF BITUMINOUS COAL AND TOTAL RAIL (OR WATER) SHIPMENTS, BY STATES, IN 1929 D. Ex. 11

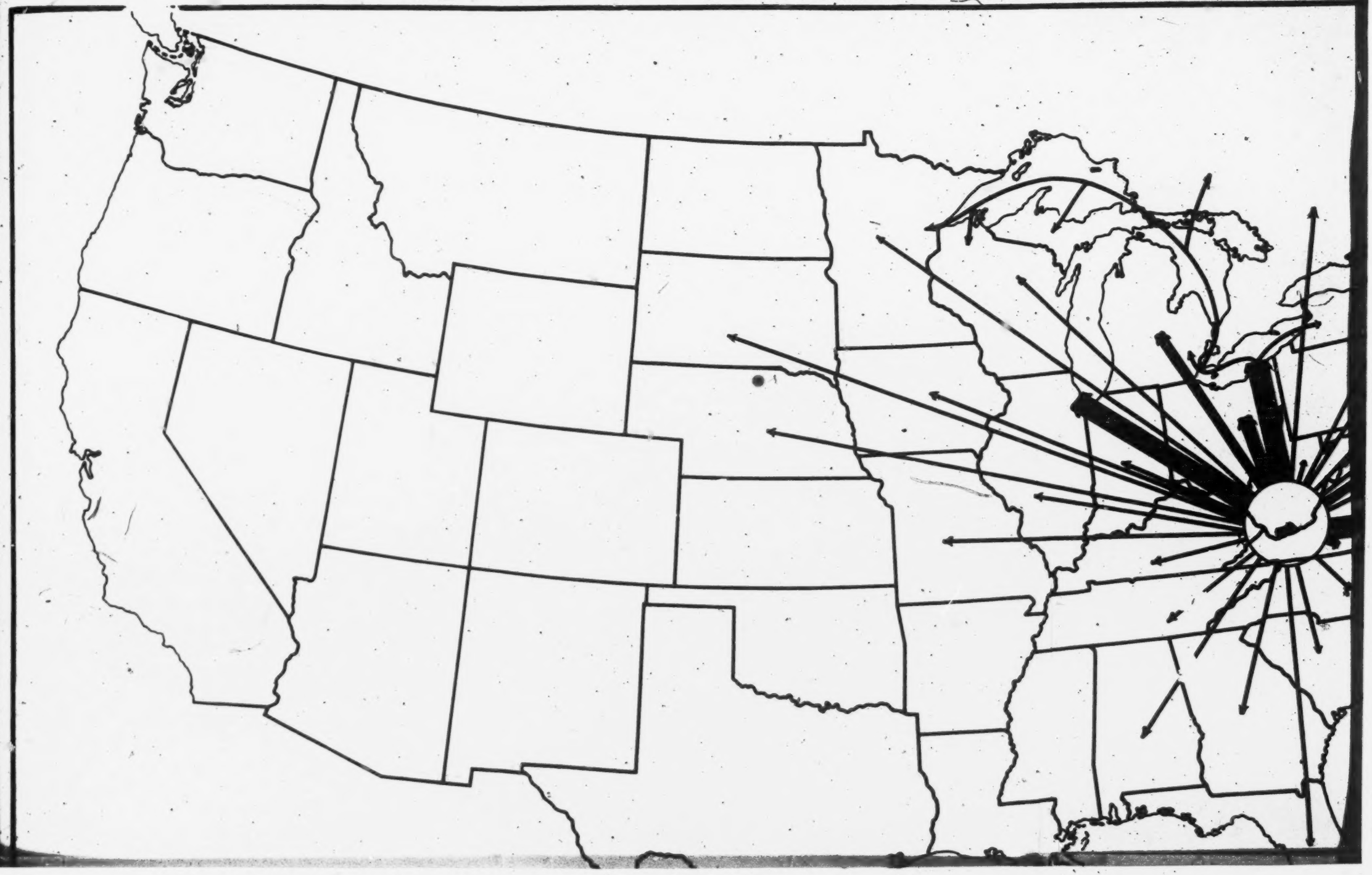


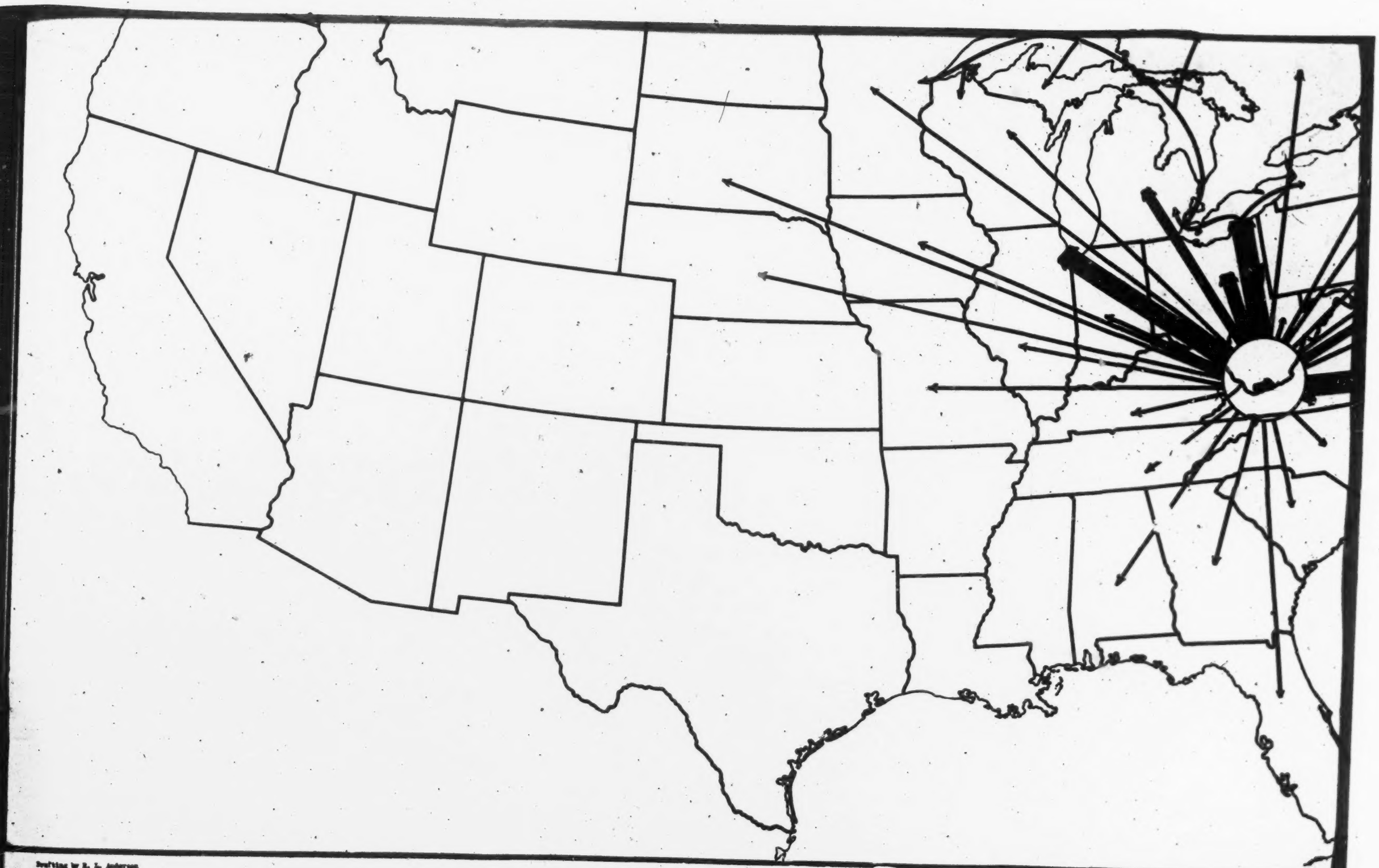


(THE FIGURES OF SHIPMENTS INCLUDE THE COAL CHARGED INTO BEEHIVE COKE OVENS AT THE MINES, SINCE WITH 3 NEGLIGIBLE EXCEPTIONS ALL THE COKE IS SHIPPED OUT BY RAIL OR WATER AS IT IS MADE. THE ONLY STATE IN WHICH RECEIPTS HAVE A SIGNIFICANT FACTOR IS PENNSYLVANIA, WHERE 7,307,726 TONS OF COAL, OR 5.1 PERCENT OF THE STATE OUTPUT, WAS MADE INTO COKE AT THE MINES IN 1945. ALL BUT 70,000 TONS OF WHICH COKE WAS THEN SHIPPED OUT BY RAIL OR WATER.)

Data by F. G. Tryon and R. S. Young
Coal Economics Division
U. S. Bureau of Mines

DISTRIBUTION OF POCAHONTAS-TUG RIVER COAL, 19





Drafting by R. L. Anderson

NOTE THAT NEW ENGLAND IS COUNTED AS ONE DESTINATION. ACTUALLY COAL FROM THIS AREA HAS SHIPPED ALL-RAIL TO MOST OF THE 6 NEW ENGLAND STATES.

STRIBUTION OF POCAHONTAS-TUG RIVER COAL, 1929

D.Ex. 12

NOTE THAT NEW ENGLAND IS COUNTED AS ONE DESTINATION. ACTUALLY COAL FROM THIS AREA HAS SHIPPED ALL-RAIL TO MOST OF THE 6 NEW ENGLAND STATES.

Data by F. G. Tryon and T. H. Tsang
Coal Economics Division
U. S. Bureau of Mines
October 31, 1935

Distribution of the supply of Bituminous Coal from each originating district in 1929 divided between Interstate, Intrastate and Railroad Fuel
(Compiled from the reports and original records of the Bureau of Mines by the same methods described in the preceding table giving the totals for the United States)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Originating District	Total supply accounted for	Deduct coal mine fuel, not available for sale	Balance available for sale (Col.1-2)	Tonnage distribution of balance available for sale: RAILROAD FUEL delivered to carriers subject to Interstate Commerce Commission a/	INTERSTATE (and foreign shipments to OTHER consumers (inc. coal equivalent of beehive coke b/	INTRASTATE shipments to OTHER consumers plus local sales c/ (inc. coal equivalent of beehive coke d/	Percent of balance available for sale: RAILROAD FUEL (See Col.4)	INTERSTATE (and foreign to OTHER consumers (See Col. 5)	Total INTERSTATE plus RAILROAD FUEL (Cols. 7+8)	INTRASTATE to OTHER consumers (See Col.6)	Grand total (Cols. 9+10)
	Net tons	Net tons	Net tons	Net tons	Net tons	Net tons	Percent	Percent	Percent	Percent	Percent
Central Pennsylvania	45,169,000	293,000	44,876,000	12,397,000	20,918,000	11,561,000	27.6	46.6	74.2	25.8	100.0
Somerset-Meyersdale	7,351,000	51,000	7,300,000	894,000	5,024,000	1,382,000	12.3	68.8	81.1	18.9	100.0
Western Pennsylvania	91,735,000	752,000	90,983,000	16,019,000	36,109,000	38,855,000	17.6	39.7	57.3	42.7	100.0
Northern Ohio	18,268,000	115,000	18,153,000	6,528,000	4,143,000	7,482,000	36.0	22.8	58.8	41.2	100.0
Southern Ohio	5,981,000	25,000	5,956,000	2,083,000	983,000	2,890,000	35.0	16.5	51.5	48.5	100.0
Michigan	805,000	50,000	755,000	482,000	---	273,000	63.8	---	63.8	36.2	100.0
Panhandle	6,335,000	19,000	6,316,000	2,455,000	2,216,000	1,645,000	38.9	35.1	74.0	26.0	100.0
Northern West Virginia	28,165,000	75,000	28,090,000	11,658,000	14,814,000	1,618,000	41.5	52.7	94.2	5.8	100.0
New River-Winding Gulf	26,705,000	101,000	26,604,000	643,000	25,463,000	498,000	2.4	95.7	98.1	1.9	100.0
Cumberland-Piedmont	5,947,000	79,000	5,868,000	759,000	4,128,000	981,000	12.9	70.4	83.3	16.7	100.0
Kanawha, Logan, Kenova-Thacker	50,575,000	94,000	50,481,000	10,457,000	38,578,000	1,446,000	20.7	76.4	97.1	2.9	100.0
Pocahontas-Tug River	30,773,000	145,000	30,628,000	597,000	29,195,000	836,000	2.0	95.3	97.3	2.7	100.0
Southwestern Virginia e/	11,486,000	41,000	11,445,000	2,936,000	7,141,000	1,368,000	25.7	62.4	88.1	11.9	100.0
Western Kentucky	14,553,000	232,000	14,321,000	4,237,000	8,514,000	1,570,000	29.6	59.5	89.1	10.9	100.0
Northeastern Kentucky	10,658,000	142,000	10,516,000	279,000	9,630,000	607,000	2.7	91.6	94.3	5.7	100.0
Mc Roberts	3,836,000	9,000	3,827,000	229,000	3,349,000	249,000	6.0	87.5	93.5	6.5	100.0
Hazard	6,533,000	10,000	6,523,000	832,000	5,175,000	516,000	12.8	79.3	92.1	7.9	100.0
Harlan-Benham	14,657,000	34,000	14,623,000	626,000	13,193,000	804,000	4.3	90.2	94.5	5.5	100.0
Southeastern Ky., Tenn. and Georgia	10,074,000	98,000	9,976,000	3,686,000	3,926,000	2,364,000	36.9	39.4	76.3	23.7	100.0
North Carolina	52,000	3,000	49,000	42,000	---	7,000	85.7	---	85.7	14.3	100.0
Alabama	17,718,000	167,000	17,551,000	5,046,000	3,038,000	9,467,000	28.8	17.3	46.1	53.9	100.0
Illinois	60,247,000	954,000	59,293,000	20,119,000	13,494,000	25,680,000	33.9	22.8	56.7	43.3	100.0
Indiana	18,468,000	326,000	18,142,000	6,109,000	5,168,000	6,865,000	33.7	28.5	62.2	37.8	100.0
Iowa	4,330,000	57,000	4,273,000	1,567,000	201,000	2,505,000	36.7	4.7	41.4	58.6	100.0
Kansas and Missouri	7,058,000	153,000	6,905,000	1,854,000	2,234,000	2,817,000	26.9	32.3	59.2	40.8	100.0
Arkansas	1,767,000	10,000	1,757,000	402,000	1,125,000	230,000	22.9	64.0	86.9	13.1	100.0
Oklahoma	3,825,000	46,000	3,779,000	1,517,000	1,190,000	1,072,000	40.1	31.5	71.6	28.4	100.0
Texas	1,101,000	14,000	1,087,000	107,000	1,000	979,000	9.8	0.1	9.9	90.1	100.0
North Dakota	1,878,000	38,000	1,840,000	16,000	68,000	1,756,000	0.9	3.7	4.6	95.4	100.0
Montana	3,416,000	48,000	3,368,000	2,213,000	220,000	935,000	65.7	6.5	72.2	27.8	100.0
Wyoming	6,751,000	188,000	6,563,000	4,373,000	1,659,000	531,000	65.6	25.3	91.9	8.1	100.0
Utah	5,151,000	17,000	5,134,000	710,000	2,234,000	2,190,000	13.8	43.5	57.3	42.7	100.0
Colorado	10,068,000	184,000	9,884,000	2,223,000	2,125,000	5,536,000	22.5	21.5	44.0	56.0	100.0
New Mexico	2,630,000	57,000	2,573,000	1,414,000	701,000	458,000	55.0	27.2	82.2	17.8	100.0
Washington	2,506,000	33,000	2,473,000	888,000	157,000	1,428,000	35.9	6.4	42.3	57.7	100.0

Originating District	Total supply accounted for	Deduct coal mine fuel, not available for sale	Balance available for sale (Col.1-2)	FUEL delivered to carriers subject to Interstate Commerce Commission a/	(and foreign shipments to OTHER consumers (inc. coal equivalent of beehive coke b/	shipments to OTHER consumers plus local sales c/ (inc. coal equivalent of beehive coke d/	RAILROAD FUEL (See Col. 4)	INTERSTATE (and foreign to OTHER consumers (See Col. 5)	Total INTERSTATE plus RAILROAD FUEL (Cols. 7+8)	INTRASTATE to OTHER consumers (See Col.6)	Grand total (Cols. 9+10)
	Net tons	Net tons	Net tons	Net tons	Net tons	Net tons	Percent	Percent	Percent	Percent	Percent
Central Pennsylvania	45,169,000	293,000	44,876,000	12,397,000	20,918,000	11,561,000	27.6	46.6	74.2	25.8	100.0
Somerset-Meyersdale	7,351,000	51,000	7,300,000	894,000	5,024,000	1,382,000	12.3	68.8	81.1	18.9	100.0
Western Pennsylvania	91,735,000	752,000	90,983,000	16,019,000	36,109,000	38,855,000	17.6	39.7	57.3	42.7	100.0
Northern Ohio	18,268,000	115,000	18,153,000	6,528,000	4,143,000	7,482,000	36.0	22.8	58.8	41.2	100.0
Southern Ohio	5,981,000	25,000	5,956,000	2,083,000	983,000	2,890,000	35.0	16.5	51.5	48.5	100.0
Michigan	805,000	50,000	755,000	482,000	---	273,000	63.8	---	63.8	36.2	100.0
Panhandle	6,335,000	19,000	6,316,000	2,455,000	2,216,000	1,645,000	38.9	35.1	74.0	26.0	100.0
Northern West Virginia	28,165,000	75,000	28,090,000	11,658,000	14,814,000	1,618,000	41.5	52.7	94.2	5.8	100.0
New River-Winding Gulf	26,705,000	101,000	26,604,000	643,000	25,463,000	498,000	2.4	95.7	98.1	1.9	100.0
Cumberland-Piedmont	5,947,000	79,000	5,868,000	759,000	4,128,000	981,000	12.9	70.4	83.3	16.7	100.0
Kanawha, Logan, Kenova-Thacker	50,575,000	94,000	50,481,000	10,457,000	38,578,000	1,446,000	20.7	76.4	97.1	2.9	100.0
Pocahontas-Tug River	30,773,000	145,000	30,628,000	597,000	29,195,000	836,000	2.0	95.3	97.3	2.7	100.0
Southwestern Virginia e/	11,486,000	41,000	11,445,000	2,936,000	7,141,000	1,368,000	25.7	62.4	88.1	11.9	100.0
Western Kentucky	14,553,000	232,000	14,321,000	4,237,000	8,514,000	1,570,000	29.6	59.5	89.1	10.9	100.0
Northeastern Kentucky	10,658,000	142,000	10,516,000	279,000	9,630,000	607,000	2.7	91.6	94.3	5.7	100.0
Mc Roberts	3,836,000	9,000	3,827,000	229,000	3,349,000	249,000	6.0	87.5	93.5	6.5	100.0
Hazard	6,533,000	10,000	6,523,000	832,000	5,175,000	516,000	12.8	79.3	92.1	7.9	100.0
Harlan-Benham	14,657,000	34,000	14,623,000	626,000	13,193,000	804,000	4.3	90.2	94.5	5.5	100.0
Southeastern Ky., Tenn. and Georgia	10,074,000	98,000	9,976,000	3,686,000	3,926,000	2,364,000	36.9	39.4	76.3	23.7	100.0
North Carolina	52,000	3,000	49,000	42,000	---	7,000	85.7	---	85.7	14.3	100.0
Alabama	17,718,000	167,000	17,551,000	5,046,000	3,038,000	9,467,000	28.8	17.3	46.1	53.9	100.0
Illinois	60,247,000	954,000	59,293,000	20,119,000	13,494,000	25,680,000	33.9	22.8	56.7	43.3	100.0
Indiana	18,468,000	326,000	18,142,000	6,109,000	5,168,000	6,865,000	33.7	28.5	62.2	37.8	100.0
Iowa	4,330,000	57,000	4,273,000	1,567,000	201,000	2,505,000	35.7	4.7	41.4	58.6	100.0
Kansas and Missouri	7,058,000	153,000	6,905,000	1,854,000	2,234,000	2,817,000	26.9	32.3	59.2	40.8	100.0
Arkansas	1,767,000	10,000	1,757,000	402,000	1,125,000	230,000	22.9	64.0	86.9	13.1	100.0
Oklahoma	3,825,000	46,000	3,779,000	1,517,000	1,190,000	1,072,000	40.1	31.5	71.6	28.4	100.0
Texas	1,101,000	14,000	1,087,000	107,000	1,000	979,000	9.8	0.1	9.9	90.1	100.0
North Dakota	1,878,000	38,000	1,840,000	16,000	68,000	1,756,000	0.9	3.7	4.6	95.4	100.0
Montana	3,416,000	48,000	3,368,000	2,213,000	220,000	935,000	65.7	6.5	72.2	27.8	100.0
Wyoming	6,751,000	188,000	6,563,000	4,373,000	1,655,000	531,000	65.6	25.3	91.9	8.1	100.0
Utah	5,151,000	17,000	5,134,000	710,000	2,234,000	2,190,000	13.8	43.5	57.3	42.7	100.0
Colorado	10,068,000	184,000	9,884,000	2,223,000	2,125,000	5,536,000	22.5	21.5	44.0	56.0	100.0
New Mexico	2,630,000	57,000	2,573,000	1,414,000	701,000	458,000	55.0	27.2	82.2	17.8	100.0
Washington	2,506,000	33,000	2,473,000	888,000	157,000	1,428,000	35.9	6.4	42.3	57.7	100.0
Arizona, California, Idaho, Nevada, Oregon and South Dakota	33,000	---	33,000	4,000	---	29,000	12.1	---	12.1	87.9	100.0
	536,605,000	4,660,000	531,945,000	126,401,000	266,114,000	139,430,000	83.8	50.0	73.8	26.2	100.0

a/ Class I, II, and III, switching and terminal. Includes deliveries by all-rail (or river) routes, by tidewater and by Great Lakes.
b/ That is, coal charged in beehive ovens at the mines to make coke known to have been shipped to INTERSTATE destinations.
c/ Local sales, by truck and wagon, used by employees or taken by railroad locomotives at tipple. Counted as INTRASTATE though includes some interstate.
d/ That is coal charged in beehive ovens at the mines to make coke known to have been shipped to INTRASTATE destinations.
e/ Includes also Virginia semi-anthracite.

By W. H. Young and F. G. Tryon
Coal Economics Division,
U. S. Bureau of Mines
October 17, 1935.

DISTRIBUTION OF THE TOTAL NATIONAL SUPPLY OF BITUMINOUS COAL IN 1929, DIVIDED BETWEEN INTERSTATE, INTRASTATE, AND RAILROAD FUEL

(Compiled from the reports and original records of the Bureau of Mines so as to segregate interstate from intrastate tonnage as accurately as possible.

Railroad fuel has to be shown separately since there is no possible way of telling just where it is consumed, although it is known that the great bulk of it moves across State lines or is burned in locomotives hauling trains that cross State lines. Only the fuel delivered to railroads subject to the jurisdiction of the Interstate Commerce Commission has been included (Classes I, II, and III, switching and terminal).

With respect to the coal delivered to other consumers, the records permit accurate separation of shipments to interstate and intrastate destinations for fully 98.2 percent of the tonnage. In order to complete the picture, the remaining 1.8 percent has been apportioned by estimate on the basis of all available data. The possible error in such estimates has no significant effect on the result.

Figures include, for convenience, lignite and the small production of anthracite and semianthracite outside of Pennsylvania. Alaska, however, is not included.)

Item	Net tons	Percent of balance available for sale (item 3)
1. Total supply accounted for a/	536,605,000	X X
2. Deduct coal-mine fuel, not available for sale b/	4,660,000	X X
3. Balance, available for sale	531,945,000	100.00
4. Local sales by truck and wagon, used by employees, or taken by railroad locomotives at tipple b/ (Counted as INTRASTATE, although includes some interstate)	23,253,000	4.37
5. Coal equivalent of beehive coke shipped from mines: c/		
6. INTERSTATE destinations	4,295,000	0.81
7. INTRASTATE destinations	4,833,000	0.91
8. RAILROAD FUEL delivered to carriers subject to jurisdiction of the Interstate Commerce Commission: d/		
9. All-rail (or river) deliveries e/	120,048,000	22.57
10. Via tidewater f/	1,677,000	0.31
11. Via Great Lakes f/	4,676,000	0.88
12. INTERSTATE (and foreign) shipments to OTHER consumers (including steamship fuel g/):		
13. All rail (or river) h/	194,466,000	36.56
14. Via tidewater i/	32,916,000	6.18
15. Via Great Lakes j/	34,437,000	6.47
16. INTRASTATE shipments to OTHER consumers (including steamship fuel g/):		
17. All rail (or river) h/	109,790,000	20.64
18. Via tidewater i/	1,462,000	0.28
19. Via Great Lakes j/	92,000	0.02

DISTRIBUTION OF THE TOTAL NATIONAL SUPPLY OF BITUMINOUS
DIVIDED BETWEEN INTERSTATE, INTRASTATE, AND RAILROAD FUEL

a/ As the figures represent distribution, involve changes in stocks, and differ slightly from the production, which was reported by the mine operators cluding Alaska.

b/ Total as reported by mine operators.

c/ A number of operators market part of their coal in the form of coke, In 1929, they reported shipping 3,020,112 tons of coke to interstate destinat destinations, and the total tonnage of raw coal charged in the ovens has been

d/ About 5 percent of the railroad fuel coal is used by the carriers in The other 95 percent is used as locomotive fuel.

e/ As reported by the traffic managers of all originating carriers to th reports from the fuel agents of Class I roads. Includes all-rail (or all-riv III, switching and terminal railroads, so far as records of reporting compani

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h/ From U. S. Bureau of Mines, Supplements to Monthly Distribution Repo portion of the tonnage which is originated in coal fields that lie in two ad within these two States has been apportioned between interstate and intrasta effect of such estimates upon the total is not significant.

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This method showed 1,462,000 tons of intrastate business and 37,487,0 Out of the latter figure, 1,677,000 tons is known to have been railroad fuel this leaves 32,916,000 tons of interstate tidewater business other than rail

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Note that these figures represent movement by vessel only. Shipment all rail.

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Item	Net tons	Percent of balance available for sale (item 3)
1. Total supply accounted for a/	536,605,000	X X
2. Deduct coal-mine fuel, not available for sale b/	4,660,000	X X
3. Balance, available for sale	531,945,000	100.00
4. Local sales by truck and wagon, used by employees, or taken by railroad locomotives at tipple b/ (Counted as INTRASTATE, although includes some interstate)	23,253,000	4.37
5. Coal equivalent of beehive coke shipped from mines: c/		
6. INTERSTATE destinations	4,295,000	0.81
7. INTRASTATE destinations	4,833,000	0.91
8. RAILROAD FUEL delivered to carriers subject to jurisdiction of the Interstate Commerce Commission: d/		
9. All-rail (or river) deliveries e/	120,048,000	22.57
10. Via tidewater f/	1,677,000	0.31
11. Via Great Lakes f/	4,676,000	0.88
12. INTERSTATE (and foreign) shipments to OTHER consumers (including steamship fuel g/):		
13. All rail (or river) h/	194,466,000	36.56
14. Via tidewater i/	32,916,000	6.18
15. Via Great Lakes j/	34,437,000	6.47
16. INTRASTATE shipments to OTHER consumers (including steamship fuel g/):		
17. All rail (or river) h/	109,790,000	20.64
18. Via tidewater i/	1,462,000	0.28
19. Via Great Lakes j/	92,000	0.02
20. RECAPITULATION		
21. INTERSTATE (and foreign) shipments plus railroad fuel delivered to carriers subject to jurisdiction of the Interstate Commerce Commission k/	392,515,000	73.79
22. INTRASTATE shipments plus local sales l/	139,430,000	26.21
23. Grand total, available for sale	531,945,000	100.00

cluding Alaska.

b/ Total as reported by mine operators.

c/ A number of operators market part of their coal in the form of coke, In 1929, they reported shipping 3,020,112 tons of coke to interstate destina destinations, and the total tonnage of raw coal charged in the ovens has bee

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Note that these figures represent movement by vessel only. Shipment all rail.

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By F. G.
Coa

THE TOTAL NATIONAL SUPPLY OF BITUMINOUS COAL IN 1929,
BETWEEN INTERSTATE, INTRASTATE, AND RAILROAD FUEL

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DISTRIBUTION OF THE TOTAL NATIONAL SUPPLY OF BITUMINOUS COAL IN 1929,
DIVIDED BETWEEN INTERSTATE, INTRASTATE, AND RAILROAD FUEL — FOOTNOTES

a/ As the figures represent distribution, involve changes in stocks, and are taken from several sources, they differ slightly from the production, which was reported by the mine operators as 534,887,983 tons in 1929, not including Alaska.

b/ Total as reported by mine operators.

c/ A number of operators market part of their coal in the form of coke, made in beehive ovens at the mines. In 1929, they reported shipping 3,020,112 tons of coke to interstate destinations and 3,406,136 tons to intrastate destinations, and the total tonnage of raw coal charged in the ovens has been apportioned accordingly.

d/ About 5 percent of the railroad fuel coal is used by the carriers in shops, round-houses, and stations. The other 95 percent is used as locomotive fuel.

e/ As reported by the traffic managers of all originating carriers to the Bureau of Mines, supplemented by reports from the fuel agents of Class I roads. Includes all-rail (or all-river) deliveries to Class I, II, and III, switching and terminal railroads, so far as records of reporting companies could identify the same.

f/ As reported to the Bureau of Mines by the fuel agents of all Class I roads.

g/ The trifling amounts of steamship fuel used by river vessels are credited to the State in which the coal was delivered to the vessel. In the more important Great Lakes and tidewater bunker trades, nearly all coal supplied for steamship fuel is known to be shipped across State lines before delivery to the vessel or else to be burned on voyages to foreign countries or on coastwise voyages between more than one State. At some ports, such as Cleveland, Ohio, coal from mines within the State is delivered to tugs, ferries, or other local vessels that do not cross to ports in another State, and such coal, as far as it can be estimated, is counted as intrastate. The possible effect of such estimate upon the total is negligible.

h/ From U. S. Bureau of Mines, Supplements to Monthly Distribution Reports Numbers 1, 3, 4, and 6. A small portion of the tonnage which is originated in coal fields that lie in two adjoining States and shipped to points within these two States has been apportioned between interstate and intrastate, partly by estimate. The possible effect of such estimates upon the total is not significant.

i/ In the U. S. Bureau of Mines 1929 survey of distribution (Supplements to Monthly Distribution Reports Numbers 1, 3, 4, and 6) the total tonnage accounted for as shipped from the mines to tidewater is 36,054,877 tons. This has been apportioned between interstate and intrastate on the basis of the following information:

Detailed reports from the railroads operating tidewater piers at the ports of New York, Philadelphia, Baltimore, Hampton Roads, and Charleston show the tonnage handled by field of origin and by destination. This permits positive identification of nearly all the interstate movements. A few items which are partly interstate and partly intrastate have been apportioned by estimate, but the possible effect of such estimate upon the total is not significant. The total tonnage traced back to each field of origin in this way was then adjusted to agree with the total quantity reported by the traffic managers of the originating railroads as having left the mines in the field of origin and consigned to tidewater piers. A similar apportionment, using various local sources of information, has been made for the small tonnage handled over tidewater piers on the Gulf and the Pacific Coast.

This method showed 1,462,000 tons of intrastate business and 37,487,000 tons of interstate business. Out of the latter figure, 1,677,000 tons is known to have been railroad fuel, covered in item (10). Deducting this leaves 32,916,000 tons of interstate tidewater business other than railroad fuel.

j/ Based upon detailed records of tonnage dumped over the lake docks, classified by railroad of origin and destination. This permits positive identification of nearly all the interstate movements. A few small items which are partly interstate and partly intrastate have been apportioned by estimate, but the possible effect of such estimates upon the total is not significant. A slight adjustment has been made by deducting 86,000 tons from the indicated interstate shipments to consumers other than railroads, in order to make the final total agree with the quantity reported by the traffic managers of the originating railroads as leaving the mines and consigned to lake ports.

Note that these figures represent movement by vessel only. Shipments by car ferry are counted as all rail.

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By F. G. Tryon and W. H. Young,
Coal Economics Division,
U. S. Bureau of Mines,
October 16, 1935.

[fol. 1064a] DEFENDANTS' EXHIBIT D-15

How Intrastate Rail Shipments of Bituminous Coal to Indianapolis Meet Competition from Interstate Rail Shipments (1929 data)

(Indianapolis is faily representative of other cities in the large coal-producing States of Illinois, Indiana, and Ohio, where much of the local output is consumed Intrastate. In 1929 the city received 52.9 percent of its all-rail coal deliveries Intrastate from Indiana mines and 47.1 percent Interstate from mines in 25 districts in 8 other States. The sources are shown in detail below.

The supplies of a number of other cities are summarized in the succeeding table. Source: Records of Ohio Bureau of Coal Statistics and Illinois Freight Association.)

Destination city	Origin fields	Net tons shipped in by rail during 1929		
		Intrastate	Interstate	Total
Indianapolis, Indiana	In same State			
	All Indiana fields	1,811,688	.....	1,811,688
	In other States			
	Big Sandy, Ky	.....	24,222	
	Kanawha-Logan, W. Va	.....	732,111	
	Kenova-Thacker, W. Va.-Ky	.....	95,288	
	McRoberts, Ky	.....	17,025	
	Hazard, Ky	.....	79,831	
	Harlan, Ky	.....	32,810	
	Southern Appalachian, Ky.-Tenn.-Va	.....	1,288	
	Southwest Virginia, Va	.....	37,183	
	Ex-river coal, W. Va.-Ky	.....	145,240	1,612,377
	Cumberland-Piedmont, Md.-W. Va	.....	153	
	New River, W. Va	.....	39,360	
	Winding Gulf, W. Va	.....	52,363	
	Pocahontas, W. Va.-Va	.....	300,111	
	Tug River, W. Va	.....	42,708	
	Fairmont, W. Va	.....	8,036	
	Western Pennsylvania, Pa	.....	837	
	Ohio (six fields), Ohio	.....	1,261	
	Southern (two fields), Ill	.....	2,091	
	Western Kentucky, Ky	.....	459	
Total tons		1,811,688	1,612,377	3,424,065
Percent		52.9%	47.1%	100.0%

By F. G. Tryon and W. H. Young, Coal Economics Division, U. S. Bureau of Mines. October 22, 1935.

HOW INTRASTATE RAIL SHIPMENTS OF BITUMINOUS COAL TO OTHER LARGE CITIES OF INDIANA, ILLINOIS AND OHIO MEET COMPETITION FROM INTERSTATE RAIL SHIPMENTS (1929 data)

(The analysis of INTRA- and INTERstate competition shown in detail for Indianapolis in the preceding table is continued in summary form below. The table lists all destination cities which are shown in separate and comparable form in the records of the Ohio Bureau of Coal Statistics and the Illinois Freight Association in these 3 States characterized by large INTERstate shipments. Details can be supplied if desired.)

Destination city	Origin fields	Net tons shipped in by rail during 1929		
		INTRAstate	INTERstate	Total
AKRON, Ohio	From same State - all Ohio fields	1,297,158	—	2,676,189
	From 6 other States - 19 fields	—	1,379,031	
	Percent of total	48.5%	51.5%	100.0%
ALKALI and PAINESVILLE[a], Ohio	From same State - all Ohio fields	7,023	—	742,663
	From 6 other States - 18 fields	—	735,640	
	Percent of total	0.9%	99.1%	100.0%
ALLIANCE, Ohio	From same State - all Ohio fields	164,503	—	252,325
	From 4 other States - 13 fields	—	87,822	
	Percent of total	65.2%	34.8%	100.0%
CANTON, Ohio	From same State - all Ohio fields	361,592	—	1,077,925
	From 5 other States - 16 fields	—	716,333	
	Percent of total	33.5%	66.5%	100.0%
CINCINNATI, Ohio[b]	From Ohio fields	3,512	—	1,914,244
	From 6 other States - 19 fields	1,910,732		
	Percent of total	[b]	[b]	100.0%
CLEVELAND, Ohio	From same State - all Ohio fields	1,395,922	—	7,914,892
	From 6 other States - 20 fields	—	6,518,970	
	Percent of total	17.6%	82.4%	100.0%
COLUMBUS, Ohio	From same State - all Ohio fields	397,616	—	1,248,112
	From 6 other States - 18 fields	—	850,496	
	Percent of total	31.9%	68.1%	100.0%
DAYTON, Ohio	From same State - all Ohio fields	29,907	—	951,657
	From 6 other States - 16 fields	—	921,750	
	Percent of total	3.1%	96.9%	100.0%
DELAWARE, Ohio	From same State - all Ohio fields	17,935	—	46,140
	From 4 other States - 13 fields	—	28,205	
	Percent of total	38.9%	61.1%	100.0%
FINDLAY, Ohio	From same State - all Ohio fields	50,025	—	147,841
	From 5 other States - 14 fields	—	97,816	
	Percent of total	33.8%	66.2%	100.0%
FOSTORIA, Ohio	From same State - all Ohio fields	21,963	—	72,093
	From 6 other States - 14 fields	—	50,130	
	Percent of total	30.5%	69.5%	100.0%
LIMA, Ohio	From same State - all Ohio fields	73,315	—	346,949
	From 5 other States - 15 fields	—	273,634	
	Percent of total	21.1%	78.9%	100.0%
LORAIN and SOUTH LORAIN, Ohio	From same State - all Ohio fields	114,474	—	2,344,530
	From 6 other States - 18 fields	—	2,230,056	
	Percent of total	4.9%	95.1%	100.0%
MANSFIELD, Ohio	From same State - all Ohio fields	118,701	—	226,572
	From 6 other States - 17 fields	—	107,871	
	Percent of total	52.4%	47.6%	100.0%
MARION, Ohio	From same State - all Ohio fields	27,237	—	172,428
	From 6 other States - 16 fields	—	145,191	
	Percent of total	15.8%		

MARION, Ohio	From same State - all Ohio fields	27,237	—	172,428
	From 6 other States - 16 fields	—	145,191	
	Percent of total	15.8%	84.2%	100.0%
MASSILLON, Ohio	From same State - all Ohio fields	145,689	—	585,147
	From 4 other States - 12 fields	—	439,458	
	Percent of total	24.9%	75.1%	100.0%
MIAMI VALLEY, Ohio	From same State - all Ohio fields	5,624	—	1,852,418
	From 6 other States - 17 fields	—	1,846,794	
	Percent of total	0.3%	99.7%	100.0%
SANDUSKY, Ohio	From same State - all Ohio fields	62,206	—	190,405
	From 6 other States - 17 fields	—	128,199	
	Percent of total	32.7%	67.3%	100.0%
SPRINGFIELD, Ohio	From same State - all Ohio fields	11,218	—	265,999
	From 6 other States - 16 fields	—	254,781	
	Percent of total	4.2%	95.8%	100.0%
TOLEDO, Ohio	From same State - all Ohio fields	344,869	—	2,044,753
	From 6 other States - 18 fields	—	1,699,884	
	Percent of total	16.9%	83.1%	100.0%
YOUNGSTOWN and MAHONING VALLEY, Ohio	From same State - all Ohio fields	134,364	—	8,120,887
	From 6 other States - 20 fields	—	7,986,523	
	Percent of total	1.7%	98.3%	100.0%
FORT WAYNE, Indiana	From same State - all Indiana fields	19,393	—	681,536
	From 5 other States - 22 fields	—	662,143	
	Percent of total	2.8%	97.2%	100.0%
GAS BELT, Indiana	From same State - all Indiana fields	600,441	—	2,268,667
	From 5 other States - 26 fields	—	1,668,226	
	Percent of total	26.5%	73.5%	100.0%
INDIANAPOLIS, Indiana	From same State - all Indiana fields	1,811,688	—	3,424,065
	From 5 other States - 25 fields	—	1,612,377	
	Percent of total	52.9%	47.1%	100.0%
SOUTH BEND, Indiana	From same State - all Indiana fields	112,576	—	614,986
	From 5 other States - 25 fields	—	502,410	
	Percent of total	18.3%	81.7%	100.0%
PEORIA, Illinois	From same State - all Illinois fields	960,353	—	1,131,731
	From 6 other States - 17 fields	—	171,378	
	Percent of total	84.9%	15.1%	100.0%
CHICAGO DISTRICT[c/] (Illinois and Indiana)	From Illinois fields	8,478,000 (To Illinois side)	1,615,000 (To Indiana side)	10,093,000
	From Indiana fields	448,000 (To Indiana side)	2,350,000 (To Illinois side)	2,798,000
	From 7 other States - 25 fields	—	19,413,000	19,413,000
	Total tonnage, Chicago district	8,926,000	23,378,000	32,304,000
	Percent of total	27.6%	72.4%	100.0%

a/ 1930 data.

b/ The Cincinnati district includes Covington, Kentucky, and several adjacent small towns immediately south of the Ohio River. The entire movement from Ohio fields to the Cincinnati district was only 3,512 tons, all of which may be counted as intrastate. Some part of the 1,910,732 tons shipped in from other States was doubtless Kentucky coal consigned to points south of the river and is also intrastate. It is clear, however, that the great bulk of the rail shipments consigned to the Cincinnati district are interstate.

c/ The Chicago district extends across the State line into Indiana. The total quantities shipped into the district as a whole are known accurately, but not the quantities moving into the Indiana as opposed to the Illinois portion. In order to complete the picture of intrastate and interstate movement, a rough apportionment has been made of the tonnages originating in these two States, based on known consumption. Shipments originating outside the two States of Illinois and Indiana are obviously interstate.

By F. G. Tryon and W. H. Young,
Coal Economics Division,

D. Ex. 17

BITUMINOUS COAL LOADED FOR RAIL SHIPMENT ON ORIGIN RAILROADS IN THE APPALACHIAN DISTRICTS NORTH OF ALABAMA - NORTHERN RAILROADS

(Compiled from the annual coal reports of the United States Bureau of Mines. Data represent revenue and non-revenue net tons loaded for shipment on originating railroads as reported by mine operators. Small affiliated roads have been combined with parent system in a form to be comparable from year to year. Electric railroads originating coal are included)

Railroads	State	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
Baltimore & Ohio RR System																
B.& O.	Maryland	34,883	99,546	5,089	33,607	48,600	35,302	43,518	61,318	39,820	29,624	43,011	42,418	40,161	28,495	14,432
B.& O. - O.& L.K.	Ohio	8,663,423	11,339,391	8,555,117	5,810,875	10,552,029	8,926,692	7,182,537	6,218,357	2,526,457	2,102,714	4,924,429	4,508,386	4,184,867	2,427,246	3,106,442
B.&O.-I.C.V.-B.R.&P.-R.V.-B.&S.	Pennsylvania	17,290,765	22,168,801	13,759,108	15,480,660	18,420,305	14,672,254	15,107,246	17,080,965	18,000,286	17,393,285	17,751,581	16,409,192	14,377,653	10,080,026	9,469,083
B.&O.-C.H.&B.-C.&C.-M.&K.	West Va.	14,241,598	17,998,389	11,837,295	12,164,314	21,254,783	15,288,473	19,195,759	24,342,834	26,155,468	22,554,660	21,267,611	17,477,246	11,992,330	9,669,111	10,418,897
Total B.& O.	All States	40,230,669	51,606,327	34,156,609	33,489,456	50,275,717	38,922,721	41,529,060	47,703,474	46,722,031	42,080,283	43,986,632	38,437,242	30,595,011	22,144,878	23,004,854
New York Central RR System																
N.Y.C.-K.&M.-T.&O.C.-Z.&W.	Ohio	6,507,800	8,754,954	5,687,118	5,094,818	7,640,143	5,308,284	6,278,104	6,910,966	2,948,234	1,926,490	4,291,463	5,182,247	4,803,304	2,921,966	4,929,884
N.Y.C.-P.& L.E.	Pennsylvania	12,052,655	13,448,833	8,711,754	7,970,981	13,763,873	9,605,951	7,987,232	9,645,570	8,622,733	8,801,681	10,114,569	9,551,140	7,616,016	6,500,636	6,614,701
Total N.Y.C	All States	18,560,455	22,203,787	14,398,872	13,065,799	21,404,016	14,914,235	14,265,336	16,556,536	11,570,967	10,728,171	14,406,032	14,733,387	12,439,320	9,422,602	11,544,585
Pennsylvania RR System																
P. RR	Maryland	- - -	- - -	- - -	- - -	- - -	- - -	378	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
P. RR	Ohio	8,675,460	8,836,749	7,690,760	6,106,018	8,311,118	6,451,707	4,487,110	5,168,021	2,991,616	3,635,101	5,615,531	5,198,833	5,026,270	3,395,428	4,803,099
P. RR - W. A.	Pennsylvania	55,555,040	58,106,761	48,558,770	42,688,511	59,710,492	46,355,571	49,809,426	54,329,057	46,822,323	42,651,087	44,926,445	39,386,114	31,608,273	25,415,235	26,113,291
P. RR	West Va.	933,545	1,222,759	732,778	1,178,768	1,285,291	990,699	1,171,175	1,445,425	1,955,226	2,078,359	1,860,429	1,507,928	1,274,825	1,280,961	953,359
Total P. RR	All States	65,164,045	68,166,269	56,982,308	49,973,297	69,306,901	53,797,977	55,468,089	60,942,503	51,769,165	48,364,547	52,402,405	46,092,875	37,909,368	30,051,624	31,869,749
Other North Roads:																
Aerial Tram Electric	Pennsylvania	- - -	- - -	- - -	6,830	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Akron, Canton & Youngstown	Ohio	- - -	- - -	1,100	62,134	33,710	25,397	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Altoona & Northern	Pennsylvania	- - -	7,877	16,424	1,083	3,980	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Andrews Run	Pennsylvania	7,825	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Bessemer & Lake Erie	Pennsylvania	3,171,402	4,127,956	2,541,271	2,978,107	4,546,404	2,306,235	2,959,946	3,117,362	1,897,939	2,409,740	3,318,744	2,467,360	1,971,958	1,309,266	1,783,433
Buffalo Creek & Gauley	West Va.	346,000	295,878	493,210	469,349	600,190	643,114	689,081	702,000	737,843	741,793	677,468	535,604	399,965	366,306	593,248
Cambria & Indiana	Pennsylvania	1,994,416	2,292,730	1,720,385	1,954,395	3,065,137	2,622,967	2,899,622	2,948,203	2,881,926	3,015,166	3,403,587	3,410,490	3,107,476	2,741,343	3,014,341
Castleman Valley																
C. V. & N. M. & T.	Maryland	- - -	- - -	5,942	18,138	12,015	- - -	768	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Chaffee	Maryland	- - -	- - -	54,279	- - -	- - -	- - -	109,070	101,435	93,981	110,083	132,138	119,172	139,114	- - -	- - -
Chesapeake & Ohio Ry. (H. V.)	Ohio	4,310,990	6,317,352	2,768,459	2,473,755	3,479,957	1,606,572	1,487,388	1,605,516	1,318,084	1,206,351	1,703,988	1,538,056	1,279,802	410,046	835,349
Chesnick & Harmar	Pennsylvania	- - -	- - -	239,539	250,761	501,955	259,499	31,598	614,376	290,465	620,361	725,310	638,808	636,611	481,873	537,145
Cleveland & Marietta	Ohio	- - -	- - -	- - -	- - -	15,065	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Conemaugh & Black Lick	Pennsylvania	- - -	- - -	- - -	- - -	- - -	- - -	120,914	258,483	294,087	157,857	39,298	9,409	78,298	53,538	88,532
Cumberland & Pennsylvania																
C. & P.	Maryland	1,729,034	2,323,610	1,169,600	529,798	1,221,554	1,019,631	1,289,063	1,651,397	1,472,707	1,322,815	1,250,381	1,045,045	924,883	574,995	678,000
C. & P.	Pennsylvania	47,598	70,598	7,320	86,596	16,961	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Total C. & P.	All States	1,776,632	2,394,208	1,176,920	616,394	1,238,515	1,019,631	1,289,063	1,651,397	1,472,707	1,322,815	1,250,381	1,045,045	924,883	574,995	678,000
Dents Run	Pennsylvania	- - -	- - -	- - -	- - -	26,492	24,846	53,011	53,877	16,500	67,928	64,400	43,475	44,165	450	4,500
Detroit, Toledo & Ironton	Ohio	235,273	554,109	74,637	278,122	126,897	40,077	11,890	13,969	11,644	14,834	7,598	8,534	4,788	2,068	10,513
East Broad Top RR & Coal Co.	Pennsylvania	503,902	611,182	267,985	261,617	555,124	720,379	669,658	752,587	324,218	331,360	463,267	487,766	542,130	580,159	587,600
Erbacon & Summerville	West Va.	- - -	- - -	- - -	- - -	- - -	360	- - -	19,649	12,875	- - -	- - -	- - -	- - -	- - -	- - -
Erie RR																
Erie	Ohio	94,489	73,964	104,606	128,871	174,234	65,908	68,920	117,761	38,957	17,319	19,897	24,702	1,783	727	1,957
Erie	Pennsylvania	1,336,400	1,615,239	1,627,428	1,101,096	1,839,790	1,718,154	1,609,057	899,531	518,650	338,524	797,774	972,138	946,169	981,268	980,855
Total Erie	All States	1,430,889	1,689,203	1,732,034	1,229,967	2,014,024	1,784,062	1,677,977	1,017,292	557,607	355,843	817,671	996,840	947,892	981,995	982,812
Federal Valley	Ohio	104,071	117,080	138,516	96,701	86,374	51,109	21,121	2,898	939	- - -	- - -	- - -	- - -	- - -	- - -
Greenbrier Cheat & Elk	West Va.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	22,188	22,725	- - -	- - -	- - -	- - -	- - -	- - -
Harmony Street	Pennsylvania	- - -	5,000	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Hartland Colliery	West Va.	4,285	39,677	29,209	66,380	89,730	74,694	148,089	109,649	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Hocking Sunday Creek	Ohio	5,604	3,372	1,636	18,058	1,312	4,815	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Huntingdon & Broad Top Mountain	Pennsylvania	777,591	778,448	396,581	448,380	656,447	341,082	557,222	738,488	533,851	535,340	521,478	379,791	319,105	859,833	839,433
Indiana County Street	Pennsylvania	8,378	5,330	2,646	8,976	4,973	1,709	930	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Johnstown & Stoney Creek	Pennsylvania	133,434	317,851	371,666	365,656	195,057	149,461	52,524	185,414	164,864	20,379	31,459	650	840	- - -	110,766
Lake Erie, Franklin & Clarion	Pennsylvania	413,989	461,297	404,713	609,590	555,566	636,179	328,874	385,914	327,195	262,010	231,985	189,487	99,115	81,699	87,447
Ligonier Valley	Pennsylvania	1,185,715	1,037,505	865,462	810,371	639,939	408,471	390,126	430,827	505,828	473,923	344,369	279,772	247,733	213,637	137,613
McKeesport Connecting	Pennsylvania	4,660	- - -	784	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
M. E. McNeals	Pennsylvania	184,000	107,562	- - -	- - -	30,608	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Monongahela Power & Railway	Ohio	- - -	- - -	995	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Monongahela Railway																
Monongahela	Pennsylvania	4,244,662	4,506,286	3,161,218	3,071,340	3,162,747	3,640,967	4,126,910	5,587,153	7,665,018	8,143,761	7,892,035	6,794,585	4,689,833	3,437,416	2,383,820
Mong.-M.&W.-Scotts Run-I.C.&N.	West Va.	2,410,498	3,321,535	3,844,066	4,034,645	8,560,222	6,785,593	8,434,670	9,525,953	9,461,746	8,584,673	8,861,482	7,589,363	7,288,838	5,717,670	6,784,423
Total Monongahela	All States	6,655,160	7,827,821	7,005,284	7,105,985	11,722,969	10,426,560	12,561,580	15,113,106	17,126,764	16,728,434	16,753,517	14,383,948	11,978,671	9,155,086	9,168,243

Total Monongahela	All States	6,695,180	7,829,821	7,005,284	7,105,985	11,722,969	10,426,560	12,561,580	15,113,106	17,126,764	16,722,434	16,753,547	14,383,948	11,978,671	9,155,086	9,168,221
Monongahela Valley Traction Co.																
Monongahela Valley Traction	Ohio	- - -	4,192	- - -	1,155	1,200	- - -	592	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Monongahela Valley Traction	West Va.	- - -	7,399	1,372	- - -	1,600	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Total Monongahela Val. Tract.	All States	- - -	11,591	1,372	1,155	2,800	- - -	592	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Monongahela West Penn																
Public Service Co. Electric	West Va.	- - -	- - -	- - -	- - -	3,623	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Montour																
Montour RR - Clinton Block	Pennsylvania	3,196,770	4,081,725	3,142,784	2,481,919	5,562,085	4,880,775	2,171,265	2,869,855	3,288,563	3,990,592	6,190,717	6,630,543	5,518,942	4,015,168	4,156,881
Morgan Run	Ohio	- - -	4,428	- - -	3,276	1,966	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Morgantown	West Va.	- - -	- - -	11,480	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
New Castle & Ohio River	Ohio	9,660	9,053	2,175	1,643	2,131	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
New Haven & Dunbar	Pennsylvania	104,578	141,610	74,791	62,548	86,674	- - -	- - -	- - -	- - -	- - -	- - -	1,106	- - -	- - -	- - -
Northern Ohio Traction & Light Co.	Ohio	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Norfolk & Western	Ohio	20,603	42,970	1,806	31,426	6,890	- - -	10,546	19,661	13,262	9,641	- - -	- - -	- - -	- - -	- - -
Ohio Railway & Power Co.	Ohio	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	88,407	- - -
Ohio River Elect. Ry. & Power Co.	Ohio	25,061	58,224	1,914	183	365	394	- - -	9,650	- - -	15,236	2,639	766	538	- - -	- - -
Ohio Service Electric	Ohio	7,850	21,608	- - -	- - -	10,000	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Pine Run Road	Pennsylvania	- - -	- - -	1,975	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Pittsburg & Shawmut	Pennsylvania	1,966,843	2,604,660	1,515,880	1,235,782	1,632,556	1,499,711	1,782,244	2,280,859	2,555,647	2,571,095	2,033,954	1,511,046	1,334,649	1,063,793	1,029,038
Pittsburgh & Susquehanna	Pennsylvania	209,843	261,981	78,808	164,599	200,786	71,631	156,999	233,437	218,852	172,339	76,949	15,677	8,531	- - -	- - -
Pittsburgh & West Virginia																
P. & W. Va.	Ohio	623,801	957,641	136,216	920,255	590,951	448,544	552,662	374,409	521,810	490,175	276,278	98,891	135,434	19,062	44,663
P. & W. Va. - W. S. B.	Pennsylvania	2,429,833	2,787,105	2,353,316	1,655,254	3,722,771	3,053,428	4,474,442	4,661,215	2,204,614	2,532,925	2,979,703	2,891,075	2,350,759	2,139,675	2,016,108
P. & W. Va.	West Va.	186,126	230,681	261,596	163,338	439,023	176,467	266,240	251,365	168,350	253,663	168,523	67,801	36,113	27,000	41,992
Total Pittsburgh & West Va.	All States	3,239,760	3,975,427	2,751,128	2,738,847	4,752,745	3,678,439	5,293,344	5,286,989	2,894,774	3,276,763	3,424,504	3,057,167	2,522,306	2,185,737	2,104,853
Pitts., Chartiers & Youghiogheny	Pennsylvania	831,259	729,293	759,392	459,129	842,391	536,245	137,106	70,880	312,657	414,852	439,961	4,302	113,627	810,115	21,734
Pitts., Mar., Butler & New Castle	Pennsylvania	4,020	- - -	763	2,500	- - -	24,423	19,383	29,943	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Pittsburgh, Lisbon & Western																
P. L. & W.	Ohio	21,499	47,506	35,059	12,181	22,646	1,030	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1,800
P. L. & W.	Pennsylvania	76,917	114,519	115,644	155,354	153,267	174,862	190,006	202,393	159,616	115,160	32,867	17,847	7,120	1,985	330
Total P. L. & W.	All States	98,416	162,025	150,703	167,535	175,913	175,892	190,006	202,393	159,616	115,160	32,867	17,847	7,120	1,985	1,530
Pittsburg, Shawmut & Northern	Pennsylvania	485,091	747,620	344,200	412,895	560,385	483,052	571,472	468,591	522,302	729,662	737,214	635,149	573,284	403,059	423,336
Preston-RR																
Preston	Maryland	3,041	16,149	- - -	13,690	8,963	671	268	284	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Preston	West Va.	46,075	173,455	1,582	86,511	88,920	67,956	149,263	235,384	238,230	209,657	249,015	247,171	160,675	125,718	133,808
Total Preston	All States	49,116	189,604	1,582	100,201	97,883	68,627	149,531	235,668	238,230	209,657	249,015	247,171	160,675	125,718	133,808
Reynoldsville & Falls Creek	Pennsylvania	586,776	382,438	4,921	139,959	237,309	- - -	78,329	- - -	5,249	114,622	- - -	- - -	- - -	- - -	- - -
Richwood & Gauley	West Va.	- - -	- - -	- - -	- - -	- - -	43,931	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Scootac	Pennsylvania	26,382	36,987	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Southeastern & Ohio River	Ohio	5,874	3,012	- - -	704	1,021	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
S., E.L., & B.V.Tract. Co. Electric	Pennsylvania	18,248	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Stroudsburg & Middleby	West Va.	22,947	37,426	200	52,496	37,000	79,578	52,005	29,460	18,780	- - -	- - -	- - -	14,500	10,600	- - -
Susquehanna & New York	Pennsylvania	85	5,601	9,197	6,480	9,315	3,413	30,241	42,600	36,397	36,307	12,036	26,703	25,180	22,808	18,966
Toronto, Knoxville & Western	Ohio	- - -	- - -	- - -	- - -	- - -	- - -	62,529	108,923	172,831	166,327	134,213	96,055	- - -	- - -	- - -
Union	Pennsylvania	156,627	252,822	168,181	570,686	561,158	350,022	130,410	72,597	20,322	31,657	14,986	18,774	44,300	18,975	52,130
Unity Railways	Pennsylvania	413,876	453,900	298,439	343,873	642,485	546,654	925,091	898,271	400,554	774,639	844,340	817,819	610,820	461,668	442,218
Ursina & North Fork	Pennsylvania	13,841	30,872	23,727	31,015	13,469	16,477	4,578	1,600	- - -	755	- - -	- - -	- - -	- - -	- - -
Washington Run	Pennsylvania	74,816	99,922	259,121	163,075	390,806	100,764	456,786	566,011	570,572	535,626	654,086	146,063	- - -	- - -	- - -
Western Maryland																
W. Md.	Maryland	1,127,982	1,476,028	508,800	570,505	890,556	889,655	1,122,803	1,141,155	1,087,047	1,101,577	1,092,562	941,410	790,211	684,116	658,882
W. Md.	Pennsylvania	560,617	835,651	437,505	701,517	694,851	475,640	603,969	757,578	607,466	344,217	330,824	373,090	443,615	451,151	583,496
W. Md.	West Va.	2,703,993	3,597,013	2,318,744	1,925,350	3,504,320	2,199,420	2,264,613	3,443,190	3,472,948	2,900,095	2,988,137	2,861,885	2,747,807	2,140,072	2,498,327
Total Western Maryland	All States	4,392,592	5,908,692	3,265,049	3,197,372	5,089,727	3,564,715	3,991,384	5,341,923	5,167,461	4,345,889	4,411,523	4,176,385	3,981,633	3,275,339	3,740,705
Westinghouse Elect. & Mfg. Co.	Pennsylvania	- - -	- - -	12,605	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
West Virginia Midland	West Va.	4,600	5,680	3,500	300	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
West Virginia Northern	West Va.	330,510	504,500	191,261	369,879	339,907	425,654	411,270	457,269	335,480	215,901	180,071	150,816	143,566	115,448	161,330
Wheeling & Lake Erie	Ohio	3,457,807	4,680,673	4,291,329	3,013,920	5,498,366	4,256,458	4,592,113	4,124,257	2,449,092	3,076,539	3,701,497	3,249,211	2,784,401	2,422,875	3,154,548
Winfield	Pennsylvania	- - -	- - -	- - -	5,843	- - -	- - -	- - -	- - -	- - -	- - -	27,470	15,886	9,697	4,358	9,248
Youngstown & Interurban	Ohio	2,850	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Youngstown & Ohio River RR	Ohio	196,308	366,455	245,300	332,893	544,944	119,251	122,416	138,686	49,699	23,715	39,617	2,356	- - -	- - -	- - -
Youngstown & Suburban Electric	Ohio	- - -	3,000	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1,090
Unspecified	Md.-Va.-W.Va.	4,991	9,513	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Total other North roads	All States	43,152,250	54,816,750	37,923,300	36,223,078	57,507,140	44,073,325	47,400,092	53,334,153	48,021,782	49,203,191	53,693,657	47,894,449	40,578,115	31,656,287	34,183,146
Grand total, all North roads	All States	167,107,419	196,793,133	143,461,089	132,751,630	198,493,774	151,708,258	158,662,577	178,536,666	158,083,945	150,376,192	164,488,726	146,557,953	121,521,814	93,875,391	100,607,734

By W. H. Young,
Coal Economics Division,
United States Bureau of Mines,

October 28, 1933.

BITUMINOUS COAL LOADED FOR RAIL SHIPMENT ON ORIGIN RAILROADS IN THE APPALACHIAN DISTRICTS NORTH OF ALABAMA - SOUTHERN RAILROADS

(Compiled from the annual coal reports of the United States Bureau of Mines. Data represent revenue and non-revenue net tons loaded for shipment on originating railroads as reported by mine operators. Small affiliated roads have been combined with parent system in a form to be comparable from year to year. Electric railroads originating coal are included)

RAILROADS	State	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
Chesapeake & Ohio Ry. System																
C.& O. - A.C.& I. - B.& O. -																
L. F. - M.C. - S.V.& E.	E. Ky.	4,772,643	5,285,987	3,572,259	6,290,170	7,163,110	8,207,503	10,476,943	10,811,491	11,116,414	9,954,723	10,420,006	9,057,824	7,153,404	6,564,446	7,061,357
C.& O. - G.& E. - P.F.& B.K. -																
S.V.	W. Va.	21,967,664	24,691,090	21,574,007	22,218,234	29,185,665	34,272,034	42,582,622	46,746,027	48,752,777	43,745,516	45,597,271	41,872,099	37,742,551	33,256,280	33,367,956
Total C.& O.	All states	26,740,307	29,977,077	25,146,266	28,508,404	36,348,775	42,479,537	53,059,565	57,557,518	59,868,751	53,700,239	56,017,277	50,929,923	44,895,955	39,820,726	40,429,313
Louisville & Nashville R.R.																
L.& N. - B.M. - C.& M.	E. Ky.	11,069,083	13,161,860	15,229,953	15,994,233	19,853,613	21,536,442	24,907,497	28,066,555	28,291,926	27,773,016	27,324,561	23,980,305	18,517,875	14,558,920	16,041,572
L.& N.	Tenn.	803,309	931,135	653,249	746,892	971,131	752,420	945,982	1,095,242	1,055,723	925,841	811,511	806,013	665,974	443,275	512,917
L.& N.	Virginia	562,988	186,264	35,147	214,483	267,084	165,221	270,589	257,143	295,050	415,890	347,146	249,418	314,944	351,779	865,375
Total L.& N.	All States	12,435,380	14,279,259	15,918,349	16,955,608	21,092,028	22,454,083	26,124,068	29,418,940	29,642,699	29,114,747	28,483,218	25,037,736	19,498,793	15,353,974	16,819,864
Norfolk & Western Ry.																
N.& W. - B.S.& C. - W.& P.C.	E. Ky.	2,974,018	2,779,791	2,145,195	3,556,230	3,865,562	3,850,676	4,842,229	5,528,831	5,434,790	5,132,914	5,644,812	4,675,633	3,708,486	3,054,905	3,249,194
N.& W.	Virginia	2,345,417	2,825,745	2,060,967	3,060,230	2,666,623	2,784,026	3,501,804	3,894,579	3,421,101	3,446,644	3,926,273	3,476,699	3,017,935	2,497,732	2,879,653
N.& W.	W. Va.	20,763,806	20,098,716	17,985,796	23,301,092	23,587,909	25,903,649	30,256,422	34,198,648	31,305,596	30,405,242	35,279,345	29,662,178	23,622,824	19,197,997	22,431,149
Total N.& W.	All States	26,083,241	25,704,252	22,191,958	29,917,552	30,120,094	32,538,351	38,600,455	43,622,058	40,161,487	38,984,800	44,850,430	37,814,510	30,349,245	24,750,634	28,559,996
Other South Roads:																
Atlantic & Yadkin	No. Car.	--	--	--	--	--	920	--	--	--	--	--	--	--	--	--
Appalachian Electric	W. Va.	--	--	--	--	--	--	--	20,911	--	--	--	--	--	--	--
Artemus Jellico-Cumberland Ry.	E. Ky.	106,370	117,675	137,752	161,959	114,726	56,646	120,000	159,958	105,718	108,966	134,892	152,968	235,320	211,008	276,786
Big Sandy & Kentucky River	E. Ky.	16,262	19,603	8,067	42,917	33,946	61,026	185,406	182,400	228,908	93,573	60,961	--	--	--	--
Campbell's Creek	W. Va.	373,410	550,274	529,718	342,458	617,609	224,516	572,751	739,130	814,805	1,022,206	848,269	913,815	690,997	656,535	815,117
Chattanooga & Montlake	Tenn.	--	29,227	19,645	53,056	37,152	12,700	--	--	--	--	--	--	--	--	--
Clinchfield																
C.C.& O.	E. Ky.	133,940	152,095	29,017	122,856	96,255	51,685	30,312	54,700	74,870	59,339	56,000	52,545	50,055	37,111	41,097
C.C.& O.	Virginia	2,016,432	2,392,795	1,815,912	2,616,311	2,690,974	2,149,392	2,563,298	2,691,315	2,300,990	1,758,825	1,958,708	1,958,511	1,819,555	1,273,520	1,573,313
Total Clinchfield	All States	2,150,372	2,544,890	1,844,929	2,739,167	2,787,229	2,201,077	2,593,610	2,746,015	2,375,860	1,818,164	2,014,708	2,011,056	1,869,610	1,310,631	1,614,410
Dayton Coal & Iron	Tenn.	26,717	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern Kentucky	E. Ky.	41,264	57,778	7,001	58,477	13,683	5,538	5,364	10,226	19,053	1,151	103	--	--	--	--
East Kentucky Southern	E. Ky.	--	--	--	--	--	--	--	--	--	--	--	--	50	--	--
Interstate R.R.																
I.R.R.	E. Ky.	--	--	--	--	171,000	122,632	85,689	21,105	75,566	135,095	243,088	303,113	225,359	73,070	46,348
I.R.R.	Virginia	1,158,318	1,911,767	1,619,382	2,104,531	2,525,791	2,274,779	2,786,738	3,069,160	2,860,479	2,471,076	2,688,938	2,193,100	1,823,612	1,488,330	1,604,776
Total Interstate R.R.	All States	1,158,318	1,911,767	1,619,382	2,104,531	2,696,791	2,397,411	2,872,427	3,090,265	2,936,045	2,606,171	2,932,026	2,496,213	2,048,971	1,561,400	1,651,124
Kanawha Central	W. Va.	8,348	11,000	11,147	74,327	40,269	113,448	183,744	169,807	223,912	252,104	209,015	233,256	111,136	109,844	157,218
Kanawha, Glen Jean & Eastern	W. Va.	330,733	348,094	388,069	433,366	633,322	778,063	994,406	1,009,376	1,228,981	1,279,210	1,291,728	1,136,491	934,208	448,191	289,272
Kelly's Creek	W. Va.	--	--	237,058	--	--	--	--	1,006,329	--	--	--	--	--	--	427,888
Kelly's Creek & Northwestern	W. Va.	448,381	--	--	--	--	--	--	--	1,237,364	1,374,284	1,278,536	1,176,961	740,897	482,426	539,953
Kentucky & Tennessee	E. Ky.	467,334	633,500	526,934	525,211	784,593	760,881	801,750	883,202	915,748	875,352	963,907	760,468	563,013	475,584	502,480
Kentucky & West Va. Power Co.	W. Va.	--	--	--	--	42,009	--	--	--	--	--	--	--	--	--	--
Kentucky, Rockcastle & Cumberland	E. Ky.	--	7,000	23,543	27,520	9,926	--	--	--	17,300	--	5,500	--	--	--	--
Lenox	E. Ky.	--	--	--	10,029	958	5,163	5,240	2,652	--	--	--	--	--	--	--
Mann's Creek	W. Va.	--	56,758	--	--	--	--	--	--	--	--	--	--	--	--	--
Moorehead & North Fork	E. Ky.	32,955	8,227	7,948	6,176	4,763	927	686	--	--	--	--	--	--	--	--
Morgan & Pentress	Tenn.	68,942	87,622	83,427	15,326	35,913	39,215	17,927	--	--	--	--	--	--	--	--
Nashville & Atlantic	Tenn.	--	--	--	--	--	--	--	--	--	--	--	--	11,050	4,000	8,885
Nashville, Chattanooga & St. Louis	Tenn.	970,607	1,426,923	976,509	999,585	1,213,063	745,662	958,484	1,004,243	938,152	988,573	1,028,569	1,019,777	895,828	721,566	851,076
New York Central Lines																

[illegible]	Virginia	2,016,432	2,392,795	1,815,912	2,616,311	2,690,974	2,149,392	2,563,298	2,691,315	2,300,990	1,758,825	1,958,706	1,958,511	1,819,555	1,273,520	1,573,313
Total Clinchfield	All States	2,150,372	2,544,890	1,844,929	2,739,167	2,787,229	2,201,077	2,593,610	2,746,015	2,375,860	1,818,164	2,014,708	2,011,056	1,869,610	1,310,631	1,614,410
Dayton Coal & Iron	Tenn.	26,717	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern Kentucky	E. Ky.	41,264	57,778	7,001	58,477	13,683	5,538	5,364	10,226	19,053	1,151	103	--	--	--	--
East Kentucky Southern	E. Ky.	--	--	--	--	--	--	--	--	--	--	--	--	50	--	--
Interstate R.R.																
I.R.R.	E. Ky.	--	--	--	--	171,000	122,632	85,689	21,105	75,566	135,095	243,088	303,113	225,359	73,070	46,348
I.R.R.	Virginia	1,158,318	1,911,767	1,619,382	2,104,531	2,525,791	2,274,779	2,786,738	3,069,160	2,860,479	2,471,076	2,688,938	2,193,100	1,823,612	1,488,330	1,604,776
Total Interstate R.R.	All States	1,158,318	1,911,767	1,619,382	2,104,531	2,696,791	2,397,411	2,872,427	3,090,265	2,936,045	2,606,171	2,932,026	2,496,213	2,048,971	1,561,400	1,651,124
Kanawha Central	W. Va.	8,348	11,000	11,147	74,327	40,269	113,448	183,744	169,807	223,912	252,104	209,015	233,256	111,136	109,844	157,218
Kanawha, Glen Jean & Eastern	W. Va.	330,733	348,094	388,069	433,366	633,322	778,063	994,406	1,009,376	1,228,981	1,279,210	1,291,728	1,136,491	934,208	446,191	289,272
Kelly's Creek	W. Va.	--	--	237,058	--	--	--	--	1,008,329	--	--	--	--	--	--	427,888
Kelly's Creek & Northwestern	W. Va.	448,381	--	--	--	--	--	--	--	1,237,364	1,374,284	1,278,536	1,176,961	740,897	482,426	539,953
Kentucky & Tennessee	E. Ky.	467,334	633,500	526,934	525,211	784,593	760,881	801,750	883,202	915,748	875,352	963,907	760,468	563,013	475,584	502,480
Kentucky & West Va. Power Co.	W. Va.	--	--	--	--	42,009	--	--	--	--	--	--	--	--	--	--
Kentucky, Rockcastle & Cumberland	E. Ky.	--	7,000	23,543	27,520	9,926	--	--	--	17,300	--	5,500	--	--	--	--
Lenox	E. Ky.	--	--	--	10,029	958	5,163	5,240	2,652	--	--	--	--	--	--	--
Mann's Creek	W. Va.	--	56,758	--	--	--	--	--	--	--	--	--	--	--	--	--
Moorehead & North Fork	E. Ky.	32,955	8,227	7,948	6,176	4,763	927	686	--	--	--	--	--	--	--	--
Morgan & Pentress	Tenn.	68,942	87,622	85,427	15,326	35,913	39,215	17,927	--	--	--	--	--	--	--	--
Nashville & Atlantic	Tenn.	--	--	--	--	--	--	--	--	--	--	--	--	11,050	4,000	8,885
Nashville, Chattanooga & St. Louis	Tenn.	970,607	1,426,923	976,509	999,585	1,213,063	745,662	958,484	1,004,243	938,152	988,573	1,028,569	1,019,777	895,828	721,566	851,076
New York Central Lines																
N.Y.C. - K.& M. - K.& W.Va.	W. Va.	1,953,373	2,967,964	1,913,140	1,708,182	2,966,123	946,834	2,238,169	2,482,210	3,001,292	2,293,375	2,086,025	1,324,688	835,746	1,221,674	733,194
Nicholas, Fayette & Greenbrier	W. Va.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,628,371
Norton & Northern	Virginia	75,681	31,369	12,000	93,411	84,780	102,058	120,146	101,030	80,465	40,005	38,451	--	--	--	--
Norfolk & Southern	No. Car.	--	--	20,000	68,524	29,419	50,174	58,160	51,997	48,535	51,740	46,280	24,464	1,600	150	--
Ohio & Kentucky	E. Ky.	62,324	139,565	21,882	59,559	28,237	16,618	17,253	13,554	10,739	52,597	61,095	47,513	14,102	4,909	2,783
Oneida & Western	Tenn.	25,313	21,006	22,050	18,081	6,363	--	1,492	2,645	1,007	2,491	3,325	1,200	--	--	13,000
Owensboro & Nashville	E. Ky.	70,734	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rockcastle River	E. Ky.	1,703	--	--	--	--	3,000	3,448	6,500	--	--	--	--	--	--	--
Southern Railway System																
Sou. - C.N.O.& T.P.	E. Ky.	493,006	911,757	510,518	493,693	758,297	538,998	542,911	606,748	610,607	570,289	428,087	583,405	302,573	306,332	566,374
Sou. - C.N.O.& T.P. - H.& N.E.	Tenn.	2,302,802	2,609,522	1,752,106	2,121,093	2,572,444	1,767,745	2,056,108	2,173,049	1,989,263	1,965,321	2,054,011	1,787,026	1,904,958	1,402,749	1,532,769
Sou.	Virginia	1,155,670	1,99[illegible]32	1,258,882	1,551,490	2,050,333	2,273,730	2,764,764	3,334,736	3,241,662	3,177,944	3,056,462	2,428,259	2,342,583	1,739,300	1,496,125
Total Southern Railway	All States	3,951,478	5,519,811	3,521,506	4,166,276	5,381,074	4,580,473	5,363,783	6,114,533	5,841,532	5,713,554	5,538,560	4,798,690	4,550,114	3,448,381	3,595,268
Tennessee	Tenn.	46,216	121,006	121,009	124,935	229,545	424,921	327,341	366,073	635,646	597,547	499,865	594,875	491,738	544,133	482,233
Tennessee Central	Tenn.	500,637	821,665	562,244	467,584	536,506	382,210	733,610	734,178	803,342	799,450	704,118	681,608	572,972	227,928	173,873
Virginian Railway																
Virginian	Virginia	750	7,350	15,888	10,132	7,106	6,956	24,982	33,548	34,584	61,408	103,734	108,397	73,626	110,720	73,305
Virginian	W. Va.	5,841,168	6,814,188	5,774,902	6,959,293	7,764,930	7,797,550	8,102,404	10,650,877	10,577,092	9,988,712	10,950,163	10,037,851	8,238,059	6,662,234	7,665,833
Total Virginian Railway	All States	5,841,918	6,821,538	5,790,790	6,969,425	7,772,036	7,804,506	8,127,386	10,684,425	10,611,676	10,050,120	11,053,897	10,146,248	8,311,685	6,772,954	7,739,138
Wingfield	Tenn.	2,898	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Winifrede	W. Va.	--	--	53,852	97,590	--	--	--	111,030	117,169	49,901	3,530	--	14,470	26,808	43,674
Unspecified	Virginia	243,251	--	--	--	--	--	--	--	--	--	--	--	--	--	--
"	No. Car.	3,229	8,660	--	--	--	--	--	--	--	--	--	--	--	--	--
Total other South roads	All States	18,978,768	24,262,922	18,459,602	21,367,672	26,100,035	21,713,987	26,302,583	31,694,693	32,193,249	30,070,534	30,803,360	27,520,291	22,893,507	18,228,122	21,545,743
Grand total, all South roads	All States	84,237,696	94,223,510	81,716,175	96,749,236	113,660,932	119,185,958	144,086,671	162,293,209	161,866,186	151,870,320	160,154,285	141,302,462	117,637,500	98,153,456	107,354,916

By W. H. Young,
Coal Economics Division,
United States Bureau of Mines.

October 28, 1935.

RECAPITULATION OF BITUMINOUS COAL LOADED FOR RAIL SHIPMENT ON NORTHERN AND ON SOUTHERN RAILROADS IN THE APPALACHIAN DISTRICTS NORTH OF ALABAMA

(Compiled and condensed from preceding detailed exhibit taken from the annual coal reports of the United States Bureau of Mines. Data represent revenue and non-revenue net tons loaded for shipment on originating railroads as reported by mine operators in the States of Pennsylvania, Ohio, Maryland, West Virginia, Virginia, North Carolina, Tennessee and Eastern Kentucky. Small affiliated roads have been combined with parent system in a form to be comparable from year to year. Electric railroads originating coal are included)

RAILROADS	1919		1920		1921		1922		1923		1924		1925		1926		1927		1928		1929		1930		1931		193
	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons
Baltimore & Ohio R.R.	40,230,669	16.0	51,606,327	17.7	34,156,609	15.2	33,489,456	14.6	50,275,717	16.1	38,922,721	14.4	41,529,060	13.7	47,703,474	14.0	46,722,031	14.6	42,080,283	13.9	43,986,632	13.6	38,437,242	13.4	30,595,011	12.8	22,304,87
New York Central R.R. including P. & L. E.	18,560,455	7.4	22,203,787	7.6	14,398,872	6.4	13,065,799	5.7	21,404,016	6.9	14,914,235	5.5	14,265,336	4.7	16,556,536	4.9	11,570,967	3.6	10,728,171	3.6	14,406,032	4.4	14,733,387	5.1	12,439,320	5.2	9,422,60
Pennsylvania R.R.	65,164,045	25.9	68,166,269	23.4	56,982,308	25.3	49,973,297	21.7	69,306,901	22.2	53,797,977	19.9	55,468,089	18.3	60,942,503	17.9	51,769,165	16.2	48,364,547	16.0	52,402,405	16.2	46,092,875	16.0	37,909,368	15.8	30,051,68
Other North roads	43,152,250	17.2	54,816,750	18.9	37,923,300	16.8	36,223,078	15.8	57,507,140	18.4	44,073,325	16.2	47,400,092	15.7	53,334,153	15.6	48,021,782	15.0	49,203,191	16.3	53,693,657	16.5	47,294,449	16.4	40,578,115	17.0	31,656,28
Total North roads	167,107,419	66.5	196,793,133	67.6	143,461,089	63.7	132,751,630	57.8	196,493,774	63.6	151,708,258	56.0	158,662,577	52.4	178,536,666	52.4	158,083,945	49.4	150,376,192	49.8	164,488,726	50.7	146,557,953	50.9	121,521,814	50.8	93,275,39
Chesapeake & Ohio R.R.	26,740,707	10.6	29,977,077	10.3	25,146,266	11.2	28,508,404	12.4	36,348,775	11.6	42,479,537	15.7	53,059,565	17.5	57,557,518	16.9	59,868,751	18.7	53,700,239	17.8	56,017,277	17.2	50,929,923	17.7	44,895,955	18.8	39,820,72
Louisville & Nashville	12,435,380	4.9	14,279,259	4.9	15,918,349	7.1	16,955,608	7.4	21,092,028	6.8	22,454,083	8.3	26,124,068	8.6	29,418,940	8.6	29,642,699	9.3	29,114,747	9.6	28,483,218	8.8	25,037,738	8.7	19,498,793	8.1	15,353,37
Norfolk & Western Ry.	26,083,241	10.4	25,704,252	8.9	22,191,958	9.8	29,917,552	13.1	30,120,094	9.6	32,538,351	12.0	38,600,455	12.8	43,622,058	12.8	40,161,487	12.6	38,984,800	12.9	44,850,430	13.8	37,814,510	13.1	30,349,845	12.7	24,750,63
Other South roads	18,978,768	7.6	24,262,922	8.3	18,459,602	8.2	21,367,672	9.3	26,100,035	8.4	21,713,987	8.0	26,302,583	8.7	31,694,693	9.3	32,193,289	10.0	30,070,534	9.9	30,803,360	9.5	27,520,291	9.6	22,893,907	9.6	18,226,12
Total South roads	84,237,696	33.5	94,223,510	32.4	81,716,175	36.3	96,749,236	42.2	113,660,932	36.4	119,185,958	44.0	144,086,671	47.6	162,293,209	47.6	161,866,186	50.6	151,870,320	50.2	160,154,285	49.3	141,302,462	49.1	117,637,500	49.2	98,153,45
Grand total North and South roads	251,345,115	100.0	291,016,643	100.0	225,177,264	100.0	229,500,866	100.0	312,154,706	100.0	270,894,216	100.0	302,749,248	100.0	340,829,875	100.0	319,950,131	100.0	302,246,512	100.0	324,643,011	100.0	287,860,415	100.0	239,159,314	100.0	191,428,84

By E. H. Young,
Coal Economics Division,
United States Bureau of Mines.

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(Compiled and condensed from preceding detailed exhibit taken from the annual coal reports of the United States Bureau of Mines. Data represent revenue and non-revenue net tons loaded for shipment on originating railroads as reported by mine operators in the States of Pennsylvania, Ohio, Maryland, West Virginia, Virginia, North Carolina, Tennessee and Eastern Kentucky. Small affiliated roads have been combined with parent system in a form to be comparable from year to year. Electric railroads originating coal are included)

1919		1920		1921		1922		1923		1924		1925		1926		1927		1928		1929		1930		1931		1932		1933	
Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total	Net tons	Percent of North and South Total
40,230,649	16.0	51,606,327	17.7	34,156,609	15.2	33,489,456	14.6	50,275,717	16.1	38,922,721	14.4	41,529,060	13.7	47,703,474	14.0	46,722,031	14.6	42,080,283	13.9	43,986,632	13.6	38,437,242	13.4	30,595,011	12.8	22,144,578	11.6	23,808,258	11.1
18,960,495	7.4	22,203,787	7.6	14,396,872	6.4	13,065,799	5.7	21,404,016	6.9	14,914,235	5.5	14,265,336	4.7	16,556,536	4.9	11,570,967	3.6	10,725,171	3.6	14,406,032	4.4	14,733,387	5.1	12,439,320	5.2	9,422,602	4.9	11,594,385	5.6
65,164,045	25.9	68,166,269	23.4	56,982,308	25.3	49,973,297	21.7	69,306,901	22.2	53,797,977	19.9	55,468,089	18.3	60,942,503	17.9	51,769,165	16.2	48,364,547	16.0	52,402,405	16.2	46,092,875	16.0	37,909,368	15.8	30,051,684	15.7	31,869,749	15.3
43,152,290	17.2	54,816,750	18.9	37,923,300	16.8	36,223,078	15.8	57,507,140	18.4	44,073,325	16.2	47,400,092	15.7	53,334,153	15.6	48,021,782	15.0	49,203,191	16.3	53,693,657	16.5	47,254,449	16.4	40,578,115	17.0	31,656,287	16.5	34,185,146	16.4
167,107,419	66.5	196,793,133	67.6	143,461,089	63.7	132,751,630	57.8	198,493,774	63.6	151,708,258	56.0	158,662,577	52.4	178,536,666	52.4	158,083,945	49.4	150,376,192	49.8	164,488,726	50.7	146,557,953	50.9	121,521,814	50.8	93,275,391	48.7	100,607,734	48.4
26,740,307	10.6	29,977,077	10.3	25,146,266	11.2	28,508,404	12.4	36,348,775	11.6	42,479,537	15.7	53,059,565	17.5	57,557,518	16.9	59,868,751	18.7	53,700,239	17.8	56,017,277	17.2	50,929,923	17.7	44,895,955	18.8	39,820,726	20.8	40,429,313	19.4
12,435,380	4.9	14,279,259	4.9	15,918,349	7.1	16,955,608	7.4	21,092,028	6.8	22,454,083	8.3	26,124,068	8.6	29,418,940	8.6	29,642,699	9.3	29,114,747	9.6	28,483,218	8.8	25,037,738	8.7	19,498,793	8.1	15,353,974	8.0	16,819,864	8.1
26,083,241	10.4	25,704,252	8.9	22,191,958	9.8	29,917,552	13.1	30,120,094	9.6	32,538,351	12.0	38,600,455	12.8	43,622,058	12.8	40,161,487	12.6	38,984,800	12.9	44,850,430	13.8	37,814,510	13.1	30,349,245	12.7	24,750,634	13.0	28,599,996	13.7
18,978,768	7.6	24,262,922	8.3	18,459,602	8.2	21,367,672	9.3	26,100,035	8.4	21,713,987	8.0	26,302,583	8.7	31,694,693	9.3	32,193,249	10.0	30,070,534	9.9	30,803,360	9.5	27,520,291	9.6	22,893,507	9.6	18,228,122	9.5	21,545,743	10.4
84,237,696	33.5	94,223,510	32.4	81,716,175	36.3	96,749,236	42.2	113,660,932	36.4	119,185,958	44.0	144,086,671	47.6	162,293,209	47.6	161,866,186	50.6	151,870,320	50.2	160,154,285	49.3	141,302,462	49.1	117,637,500	49.2	98,153,456	51.3	107,394,916	51.6
251,345,115	100.0	291,016,643	100.0	225,177,264	100.0	229,500,866	100.0	312,154,706	100.0	270,894,216	100.0	302,749,248	100.0	340,829,875	100.0	319,950,131	100.0	302,246,512	100.0	324,643,011	100.0	287,860,415	100.0	239,159,314	100.0	191,428,847	100.0	207,962,650	100.0

By E. H. Young,
Coal Economics Division,
United States Bureau of Mines.

TABLE NO. 1.—*Quantity and cost of fuel purchased by class I steam roads in the calendar years 1920 and 1919, by territorial regions.*

[Class I roads are those having annual operating revenues above $1,000,000.]

Region and year.	Bituminous coal.									
	Quantity in net tons purchased and delivered during year.			Total cost delivered.	Total cost at mine.			Average cost per net ton.		
	Contract purchases.	Spot purchases.	Total.		Contract purchases.	Spot purchases.	Total.	Delivered.	At mine.	
									Contract.	Spot.
New England	1920 4,028,518	3,346,023	7,374,541	$59,642,618	$15,115,572	$20,307,472	$35,423,344	$8.09	$3.79	$6.25
	1919 3,732,109	1,617,282	5,349,391	27,659,710	9,221,145	3,851,068	13,072,213	5.17	2.52	3.45
Great lakes	1920 19,458,743	5,088,569	24,577,312	108,741,851	63,107,462	20,422,979	83,530,441	4.34	3.24	4.01
	1919 15,932,076	2,845,864	18,777,940	61,315,904	38,278,785	7,648,985	45,927,770	3.27	2.40	2.69
Ohio-Indiana-Allegheny	1920 28,598,448	8,772,233	37,370,681	141,444,534	91,970,515	30,052,060	121,022,575	3.78	3.22	4.46
	1919 27,327,380	4,291,609	31,618,989	84,782,184	64,417,806	11,580,993	75,998,799	2.68	2.36	2.70
Pocahontas	1920 3,892,522	2,961,299	6,763,831	26,961,809	12,782,450	13,606,735	26,361,285	3.99	3.35	4.59
	1919 4,236,083	1,643,181	5,909,214	15,776,873	10,530,558	4,626,889	15,188,446	2.67	2.49	2.75
Southern	1920 19,857,477	2,997,017	22,854,494	85,661,571	61,140,751	13,782,880	74,923,631	3.75	3.08	4.60
	1919 16,334,108	1,560,451	17,894,559	51,571,898	40,440,790	4,395,892	44,836,682	2.88	2.48	2.87
Northwestern	1920 20,857,261	2,377,455	23,234,726	98,122,089	58,634,374	10,996,820	69,571,204	4.26	[1] 3.12	[2] 4.62
	1919 15,701,297	1,569,963	17,271,260	61,628,477	37,810,694	5,387,524	43,204,218	3.57	[3] 2.89	[4] 3.66
Central western	1920 21,670,973	2,347,508	24,018,481	94,885,227	69,680,470	7,875,027	77,564,497	3.52	[5] 3.22	3.95
	1919 17,613,236	1,530,517	19,132,853	58,219,750	45,906,140	4,120,259	51,035,369	3.04	2.66	2.78
Southwestern	1920 7,282,473	1,906,986	9,249,459	36,663,770	25,896,782	7,730,199	33,627,981	4.07	3.59	4.62
	1919 6,089,084	1,282,626	7,361,700	20,676,822	20,144,612	4,040,755	24,185,367	3.65	3.62	3.15
Total—All regions	1920 125,426,845	29,857,090	155,283,936	641,224,469	398,269,998	122,805,302	521,864,806	4.13	[6] 3.22	[6] 4.58
	1919 107,536,006	16,301,806	123,907,806	398,696,885	267,786,806	46,830,369	313,576,894	3.15	[7] 2.83	[8] 3.82

NOTE.—In computing the average cost per net ton, certain tonnage for which the cost was not available was excluded. These exclusions, except as specifically stated in the footnotes below, are practically negligible in their effect, and hence are not stated in detail.

[1] Excluding 1,982,017 tons, price not furnished.
[2] Excluding 133,679 tons, price not furnished.
[3] Excluding 2,053,183 tons, price not furnished.
[4] Excluding 48,168 tons, price not furnished.
[5] Excluding 1,988,688 tons, price not furnished.
[6] Excluding 254,774 tons, price not furnished.
[7] Excluding 2,787,888 tons, price not furnished.
[8] Excluding 182,471 tons, price not furnished.

From Interstate Commerce Commission Reports, Vol. 61, p. 761, Docket No. 13986, Increased Cost of Railroad Fuel, 1920, Report of the Commission to the Senate of the United States in Response to Senate Resolution No. 312.

INCREASED COST OF RAILROAD FUEL. Defendant's Ex. 20 763

[fols. 1070-1070-2] DEFT'S EX. 21 (Substituted 11/8/35)

Appalachian and Pocahontas-Tug River Agreements

By and Between Pocahontas Operators' Association and the United Mine Workers of America, District 17, and the International Union

Effective October 1, 1935, until March 31, 1937, Inclusive

[fol. 1070-3] Appalachian Agreement

This Agreement made the 26th day of September, 1935, between the Eastern Bituminous Coal Association, Georges Creek and Upper Potomac Coal Association, Somerset County Coal Operators' Association, Western Pennsylvania Coal Control Association, Ohio Coal Control Association, Michigan Coal Operators' Association, Northern Panhandle of West Virginia Coal Operators' Association, Northern West Virginia Subdivisional Coal Association, Operators' Association of the Williamson Field, Big Sandy-Elkhorn Coal Operators' Association, Hazard Coal Operators' Association, Kanawha Coal Operators' Association, Logan Coal Operators' Association, Southern Appalachian Coal Operators' Association, New River Coal Operators' Association, Pocahontas Operators' Association, Winding Gulf Operators' Association, Greenbrier Coal Operators' Association, voluntary associations on behalf of each member thereof, and Harlan County, Kentucky, coal operators signatory hereto, and Virginia coal operators signatory hereto, hereinafter referred to as the Operators, party of the first part, and the International Union United Mine Workers of America and Districts 2, 3, 4, 5, 6, 16, 17, 19, 24, 28, 30, and [fol. 1070-4] 31, hereinafter referred to as the Mine Workers and on behalf of each member thereof, party of the second part. (New Districts of the United Mine Workers of America may be established in this territory.)

Witnesseth: It is agreed that this contract is for the exclusive joint use and benefit of the contracting parties, as heretofore defined and set forth in this Agreement; and it shall be construed as binding upon and effective in determining only the relations with each other of those represented by the parties signatory hereto. It is the intent and

purpose of the parties hereto that this Agreement will promote an improved industrial and economic relationship in the bituminous coal industry, and to set forth herein the basic agreements covering rates of pay, hours of work, and conditions of employment to be observed between the parties in the following districts constituting the Appalachian Territory.

Northern Territory:—Pennsylvania, Michigan, Ohio, together with Ohio, Brook, Hancock and Marshall Counties of West Virginia, and Northern West Virginia, including Counties of Barbour, Braxton, Calhoun, Doddridge, Gilmer, Harrison, Jackson, Lewis, Marion, Monongalia, Pleasants, Preston, Randolph, Ritchie, Roane, Taylor, Tyler, Upshur, Webster, Wetzel, Wirt, Wood, and that portion of Nicholas County including mines served by the Baltimore and Ohio Railroad and north. Maryland and Upper Potomac District, including Grant, Mineral and Tucker Counties of West Virginia.

Southern Territory:—The State of Virginia, Northern Tennessee, that part of Kentucky lying east of a line [fol. 1070-5] drawn north and south through the City of Louisville, and that part of West Virginia not included in Northern territory.

Maximum Hours and Working Time

Seven hours of labor shall constitute a day's work. The seven-hour day means seven hours' work in the mines at the usual working places for all classes of labor, exclusive of the lunch period, whether they be paid by the day or be paid on the tonnage basis; except in cases of accident which temporarily necessitates longer hours for those Mine Workers required on account thereof; and also excepting that number of Mine Workers in each mine whose daily work includes the handling of man-trips and those who are required to remain on duty while men are entering and leaving the mine.

The seven-hour day, five-day week (35 hours per week), as provided in this Agreement, shall prevail.

The following classes of Mine Workers are excepted from the foregoing provisions as to the maximum hours of work:

All Mine Workers engaged in the transportation of men and coal shall work the additional time necessary to handle

man-trips and all the coal in transit, and shall be paid the regular hourly rate. Outside employees engaged in the dumping, handling and preparation of coal, and the manufacture of coke, shall work the additional time necessary, not to exceed 30 minutes, to dump and prepare the coal [fol. 1070-6] delivered to the tipple each shift, and complete the usual duties incidental to the operation of coke ovens, and shall be paid the regular hourly rates. This rule shall not encourage the working of overtime except where it is absolutely necessary to take care of the conditions named.

When day men go into the mine in the morning they shall be entitled to two hours' pay whether or not the mine works the full two hours, but after the first two hours the men shall be paid for every hour thereafter by the hour, for each hours' work or fractional part thereof. If for any reason the regular routine work can not be furnished inside day men, the employer may furnish other than the regular work.

Drivers shall take their mules to and from stables, and the time required in so doing shall not include any part of the day's labor, their work beginning when they reach the change at which they receive empty cars, but in no case shall the driver's time be docked while he is waiting for such cars at the point named. The method at present existing covering the harnessing and unharnessing of mules shall be continued throughout the life of this Agreement.

Motormen and trip riders shall be at the passway where they receive the cars at starting time. The time required to take motors to the passway at starting time and departing from the same at quitting time shall not be regarded as part of the day's labor, their time beginning when they reach the change or parting at which they receive cars, but [fol. 1070-7] in no case shall their time be docked while waiting for cars at the point named.

Employees engaged at power houses, sub-stations and pumps operating continuously for 24 hours daily are especially exempted from the seven-hour day provision. Special exemptions for other individual employees than those named above, when 24 hours continuous operation daily is required, are subject to arrangement between the mine management and district officers. Employees so especially

exempted are limited to eight hours per day and 40 hours per week.

Holidays

Holidays now recognized in various District Agreements shall be effective during the period of this Agreement.

Basic Tonnage Rate

Pick mining is the removal by the miner of coal that has not been undercut, center-cut or overcut by a machine. The basic rate for pick mining and hand loading of coal shall include the work required to drill, shoot and clean and load the coal properly, timber the working place, and all other work and customs incidental thereto.

A maximum shortwall machine differential of eleven cents (11c) per net ton between pick and machine mining rates shall be maintained.

[fol. 1070-8] Any change in mining methods or installation of equipment that relieves the Mine Worker of any of the above duties and increases his productive capacity shall be recognized and a piece work rate agreed to therefor properly related to the basic rate.

The standard for basic tonnage rates shall be 2,000 pounds per ton; where the gross ton of 2,240 pounds is the measure the equivalent rate shall be paid.

The basic tonnage, hourly and day wage rates for the various producing districts represented in this conference are shown in the attached schedules, which are parts hereof.

Yardage and deadwork rates in all districts shall be increased ten (10) per cent.

Checkweighman

The Mine Workers shall have the right to a checkweighman, of their own choosing, to inspect the weighing of coal; provided that in any case where on account of physical conditions and mutual agreement wages are based on measure or other method than on actual weights, the Mine Workers shall have the right to check the accur[illegible] and fairness of such method, by a representative of their own choosing.

Cars shall be tared at reasonable intervals and without inconvenience to the operation of the mine. Tare shall be taken of the cars in their usual running condition.

At mines not employing a sufficient number of men to maintain a checkweighman the weight credited to the Mine [fol. 1070-9] Workers shall be checked against the billing weights furnished by railroads to the Operators, and on coal trucked from such mines a practical method to check the weights shall be agreed upon. Such weights shall be checked once a month.

The wages of checkweighmen will be collected through the pay office semi-monthly, upon a statement of time made by the checkweighman, and approved by the Mine Committee. The amount so collected shall be deducted on a percentage basis, agreed upon by the checkweighman and clerk, from the earnings of the Mine Workers engaged in mining coal and shall be sufficient only to pay the wages and legitimate expenses incident to the office.

If a suitable person to act as checkweighman is not available among the Mine Workers at the mine, a man not employed at the mine may be selected upon mutual agreement.

The checkweighman, or checkmeasurer, as the case may require, shall be permitted at all times to be present at the weighing or measuring of coal, also have power to checkweigh or checkmeasure the same, and during the regular working hours to have the privilege to balance and examine the scales or measure the cars, providing that all such balancing and examination of scales shall only be done in such way and at such time as in no way to interfere with the regular working of the mine. It shall be the further duty of the checkweighman or checkmeasurer to credit each Mine Worker with all merchantable coal mined by him on [fol. 1070-10] a proper sheet or book kept by him for that purpose. Checkweighmen or checkmeasures shall in no way interfere with the operation of the mine.

Boys

No person under seventeen (17) years of age shall be employed inside any mine nor in hazardous occupations outside any mine, provided, however, that where a state law provides a higher minimum age, the state law shall govern.

Exemptions under This Contract

The term Mine Worker as used in this Agreement shall not include Mine foremen, assistant mine foremen, fire

bosses, or bosses in charge of any classes of labor inside or outside of the mine, or coal inspectors, or weigh-bosses, watchmen, clerks, or members of the executive, supervisory, and technical forces of the Operators.

Management of Mines

The management of the mine, the direction of the working force, and the right to hire and discharge are vested exclusively in the Operator, and the United Mine Workers of America shall not abridge these rights. It is not the intention of this provision to encourage the discharge of Mine Workers, or the refusal of employment to applicants because of personal prejudice or activity in matters affecting the United Mine Workers of America.

[fol. 1070-11]

Mine Committee

A Committee of three (3) Mine Workers, who shall be able to speak and understand the English language, shall be elected at each mine by the Mine Workers employed at such mine. Each member of the Mine Committee shall be an employee of the mine at which he is a committee member, and shall be eligible to serve as a committee member only so long as he continues to be an employee of said mine. The duties of the Mine Committee shall be confined to the adjustment of disputes arising out of this Agreement that the mine management and Mine Worker, or Mine Workers, have failed to adjust. The Mine Committee shall have no other authority or exercise any other control, nor in any way interfere with the operation of the mine; for violation of this clause any or all members of the Committee may be removed from the committee.

Settlement of Disputes

Should differences arise between the Mine Workers and the Operator as to the meaning and application of the provisions of this Agreement, or should differences arise about matters not specifically mentioned in this Agreement, or should any local trouble of any kind arise at any mine, there shall be no suspension of work on account of such differences, but an earnest effort shall be made to settle such differences immediately:

First, between the aggrieved party and the mine management;

[fol. 1070-12] Second, through the management of the mine and the Mine Committee;

Third, by a Board consisting of four members, two of whom shall be designated by the Mine Workers and two by the Operators.

Should the Board fail to agree, the matter shall be referred to an umpire selected by said Board. Should the Board be unable to agree on the selection of an umpire, he shall be designated by the International President of the United Mine Workers of America and the President of the Operators association affected. The decision of the umpire in any event shall be final.

District conferences may establish an intermediate board consisting of two (2) commissioners, one representing the Operators and one representing the Mine Workers with such powers as said conference may delegate.

Pending the hearing of disputes the Mine Workers shall not cease work because of any dispute; and a decision reached at any stage of the proceedings shall be binding on both parties thereto, and shall not be subject to reopening by any other party or branch of either association except by mutual agreement.

Expense and salary incident to the services of an umpire shall be paid jointly by the Operators and Mine Workers in each district.

Discharge Cases

When a Mine Worker has been discharged from his employment and he believes he has been unjustly dealt with, [fol. 1070-13] it shall be a case arising under the method of settling disputes herein provided. In all discharge cases should it be decided under the rules of this Agreement that an injustice has been dealt the Mine Worker, the Operator shall reinstate and compensate him at the rate based on the earning of said Mine Worker prior to such discharge. Provided, however, that such case shall be taken up and disposed of within five days from the date of discharge.

Illegal Suspension of Work

A strike or stoppage of work on the part of the Mine Workers shall be a violation of this Agreement. Under no circumstances shall the Operator discuss the matter under dispute with the Mine Committee or any representa-

tive of the United Mine Workers of America during suspension of work in violation of this Agreement.

Irregular Work

When any Mine Worker absents himself from his work for a period of two days without the consent of the Operator, other than because of proven sickness, he may be discharged.

Preparation of Coal and Mining Practice

Each district agreement shall provide for the preparation and proper cleaning of coal. Proper disciplinary rules and penalties shall also be incorporated in such agreements.

[fol. 1070-14]

Safety Practice

Reasonable rules and regulations of the Operator for the protection of the persons of the Mine Workers and the preservation of property shall be complied with.

Engineers and Pumpers Duties

When required by the management, engineers, pumpers, firemen, power plant and substation attendants shall under no conditions suspend work but shall at all times protect all the company's property under their care, and operate fans and pumps and lower and hoist men or supplies as may be required to protect the company's coal plant.

Shifts

The Operator shall have the right during the entire period of this Agreement to work all the mines, or any one or more of them, extra shifts with different crews.

When the mine works only one shift it shall be in the day time, but this shall not prevent cutting and loading coal at night in addition to the day shift cutting and loading.

Pay Day

Pay shall be made semi-monthly and at least twice each month.

Coke and Cleaning Plants

Proper rules may be negotiated in District Conferences to provide for continuous operation of coking and cleaning plants.

[fol. 1070-15] Miscellaneous Provisions

Matters affecting cost of explosives, blacksmithing, electric cap lamps, and house coal are referred to the district conferences.

To the extent it has been the custom in each district, all bottom coal shall be taken up and loaded by the Mine Worker.

The cutter shall cut the coal as directed by the Operator.

District Conferences

District agreements shall be made dealing with local or district conditions, and it is agreed that such district agreements shall embody the basic rates of pay, hours of work, and conditions of employment herein set forth, and all specific rights and obligations of Operators and Mine Workers herein recognized.

This Agreement shall supersede all existing and previous contracts; and all local rules, regulations and customs heretofore established in conflict with this Agreement are hereby abolished. Prior practice and custom not in conflict with this Agreement may be continued.

All internal differences are hereby referred to the various districts for settlement, with the understanding that only by mutual consent shall anything be done in district conferences that will increase the cost of production or decrease the earning capacity of the men.

Proper arrangements for collections for the United Mine Workers of America shall be made in District Conferences.

[fol. 1070-16] Differentials

Within fifteen days after the signing of the Appalachian Joint Wage Agreement the Joint Sub-Scale Committee of Sixteen (16) of this Conference shall meet at the time and place designated by the Chairman. The Committee shall there and then forthwith draft plans, set up the machinery and establish the procedure to dispose of the disputes before this Conference as to tonnage and day wage rate differentials, and fix the time limits within which final determination of all such disputes shall be made, which in no event shall be later than February 1, 1936.

In the event the Committee is unable within three (3) days to agree upon any matter or matters connected with

the performance of this duty the question at issue shall be immediately laid before a Judge of the Supreme Court of the District of Columbia, and his decision, after hearing, shall be final and immediately effective. No decision as to rules, regulations or procedure on the part of any Commission, Board, Committee or Tribunal selected to dispose of this differential problem shall impose a reduction in tonnage, yardage, deadwork, or day wages rates on the mine workers affected.

In the event a report requiring changes in differentials is made, the Appalachian Conference shall be reassembled on or before February 1, 1936, to make effective such revisions.

[fol. 1070-17] Appalachian Joint Conference

A Joint Conference of representatives of the Eastern Bituminous Coal Association, Georges Creek and Upper Potomac Coal Association, Somerset County Coal Operators' Association, Western Pennsylvania Coal Control Association, Ohio Coal Control Association, Michigan Coal Operators Association, Northern Panhandle of West Virginia Coal Operators' Association, Northern West Virginia Subdivisional Coal Association, Operators' Association of the Williamson Field, Big Sandy-Elkhorn Coal Operators' Association, Hazard Coal Operators' Association, Kanawha Coal Operators' Association, Logan Coal Operators' Association, Southern Appalachian Coal Operators' Association, New River Coal Operators' Association, Pocahontas Operators' Association, Winding Gulf Operators' Association, Greenbrier Coal Operators' Association, Harlan County, Kentucky, coal operators signatory hereto, and Virginia coal operators signatory hereto, and the International Union United Mine Workers of America and Districts 2, 3, 4, 5, 6, 16, 17, 19, 24, 28, 30 and 31, shall be held in the City of New York, N. Y., February 17, 1937, to consider what revisions, if any, shall be made in this Agreement as to hours, wages, and conditions of employment.

This Agreement shall become effective October 1, 1935, and shall continue in effect to April 1, 1937.

In witness whereof each of the parties hereto, pursuant to proper authority, has caused this Agreement to be signed [fol. 1070-18] by its proper officers.

Note

Signed by representatives of all districts except Harlan, Hazard, Virginia, and Southern Appalachian.

1:30 A. M., September 27, 1935

United Mine Workers of America, John L. Lewis, President. Philip Murray, Vice President. Thos. Kennedy, Secretary-Treasurer. Jas. Mark, District 2. Frank Hughes, District 3. Wm. Hynes, District 4. P. T. Fagan, District 5. O. J. Owens, District 6. John T. Jones, District 16. Van A. Bittner, District 17. Wm. Turnblazer, District 19. Ernest Stevenson, District 24. John Saxton, District 28. Sam Caddy, District 30. Frank Miley, District 31.

Operators

Charles O'Neill, President; Walter A. Jones, Secretary-Treasurer, Eastern Bituminous Coal Association.

[fol. 1070-19] Charles O'Neill, President; Walter A. Jones, Secretary-Treasurer, Central Pennsylvania Coal Producers' Assn.

Charles E. H. Brown, President, Georges Greek & Upper Potomac Coal Assn.

Telford Lewis, President; Somerset County Coal Operators Association.

J. D. A. Morrow, President; Byron H. Canon, Secretary, Western Pennsylvania Coal Control Assn.

Wm. Emery, Jr., Vice President; D. F. Hurd, Secretary, Ohio Coal Control Association.

Warren Pippin, Michigan Coal Operators' Association.

Wm. Taylor, Northern Panhandle of West Virginia Coal Operators' Association.

S. D. Brady, Jr., A. C. Beeson, Northern West Virginia Subdivisional Coal Association.

L. E. Woods, President; Joseph J. Ardigo, Secretary, Operators' Association of Williamson Field.

Thos. S. Haymond, President; H. S. Homan, Big Sandy-Elkhorn Coal Operators' Assn.

Hazard Coal Operators' Association:

[fol. 1070-20] D. H. Morton, D. C. Kennedy, Kanawha Coal Operators' Association.

H. E. Jones, President; H. A. McAllister, Logan Coal Operators' Association.

Southern Appalachian Coal Operators' Association:

Edw. Graff, President; S. C. Higgins, Secretary, New River Coal Operators' Association.

M. L. Garvey, Chairman, Labor Committee; W. E. E. Koepler, Secretary, Pocahontas Operators' Association.

L. T. Putnam, Vice President; P. C. Graney, Secretary, Winding Gulf Operators' Association.

J. Wade Bell, President; Walter Crichton, Jr., Secretary, Greenbrier Coal Operators' Association.

Harlan County, Kentucky, Coal Operators.

Virginia Coal Operators.

[fol. 1070-21] Smokeless Wage Agreement

Wage Agreement between the Smokeless Coal Board Representing Operators of The Five Smokeless Producing Districts, namely, Pocahontas, Tug River, Winding Gulf, New River, and Greenbrier, and The International Union United Mine Workers of America, and District No. 17, United Mine Workers of America.

This contract made and entered into between the Smokeless Coal Board, representing producers of Smokeless Coal in the following districts: Pocahontas, Tug River, Winding Gulf, New River, and Greenbrier; party of the first part, and the International Union United Mine Workers of America and District No. 17, on behalf of itself and each of its members, parties of the second part. New districts may be established embracing this territory.

Witnesseth:

The Appalachian Agreement dated September 26, 1935, is hereby made a part (marked Schedule I) of the Agreement of the United Mine Workers of America, District No. 17, and the Smokeless Coal Board, representing producers

of Smokeless Coal in the following districts: Pocahontas, Tug River, Winding Gulf, New River, and Greenbrier.
[fol. 1070-22] The parties hereto further covenant and agree as follows:

That this contract is for the exclusive joint use and benefit of the contracting parties, as heretofore defined and set forth in this Agreement; and it shall be construed as binding upon and effective in determining only the relations with each other of those represented by the parties signatory hereto. It is the intent and purpose of the parties hereto that this Agreement will promote an improved industrial and economic relationship in the Smokeless Coal producing area embraced in this agreement and to set forth herein the basic agreements covering the rates of pay, hours of work, and conditions of employment to be observed between the parties hereto.

The prices and provisions of this contract shall apply to all mines in the Smokeless producing district and in what is now known as District No. 17, operated by companies parties to this agreement.

It is understood and agreed by and between the parties hereto, that if the United Mine Workers of America negotiate a wage agreement or an agreement covering variations in working conditions, with any other person, association, or districts on a basis more favorable to such other person, association, or districts than the basis of this present wage agreement, then in that event the basis of this present wage agreement shall be modified so that the producers of Smokeless Coal in the five districts shall receive all of the benefits of such more favorable wage agreement, [fol. 1070-23] unless such agreement has been approved by the producers of Smokeless Coal represented by the Smokeless Coal Board.

Maximum Hours and Working Time

Seven hours of labor, shall constitute a day's work. The seven-hour day means seven hours' work in the mines at the usual working places for all classes of labor, exclusive of the lunch period, whether they be paid by the day or be paid on the tonnage basis; except in cases of accident which temporarily necessitates longer hours for those Mine Workers required on account thereof; and also excepting that number

of Mine Workers in each mine whose daily work includes the handling of man-trips and those who are required to remain on duty while men are entering and leaving the mine.

The seven-hour day, five-day week (35 hours per week), as provided in this Agreement, shall prevail.

The following classes of Mine Workers are excepted from the foregoing provisions as to the maximum hours of work:

All Mine Workers engaged in the transportation of men and coal shall work the additional time necessary to handle man-trips and all the coal in transit, and shall be paid the regular hourly rate. Outside employees engaged in the dumping, handling and preparation of coal, and the manufacture of coke, shall work the additional time necessary, not to exceed 30 minutes, to dump and prepare the coal [fol. 1070-24] delivered to the tipple each day, and complete the usual duties incidental to the operation of coke ovens, and shall be paid the regular hourly rates. This rule shall not encourage the working of overtime except where it is absolutely necessary to take care of the conditions named.

When day men go into the mine in the morning they shall be entitled to two hours' pay whether or not the mine works the full two hours, but after the first two hours the men shall be paid for every hour thereafter by the hour, for each hour's work or fractional part thereof. If for any reason the regular routine work can not be furnished inside day men, the employer may furnish other than the regular work.

Drivers shall take their mules to and from stables, and the time required in so doing shall not include any part of the day's labor, their work beginning when they reach the change at which they receive empty cars, but in no case shall the driver's time be docked while he is waiting for such cars at the point named. The method at present existing covering the harnessing and unharnessing of mules shall be continued throughout the life of this Agreement.

Motormen and trip riders shall be at the passway where they receive the cars at starting time. The time required to take motors to the passway at starting time and departing from the same at quitting time shall not be regarded as part of the day's labor, their time beginning when they reach the change or parting at which they receive cars, but [fol. 1070-25] in no case shall their time be docked while waiting for cars at the point named. Motormen shall at all times take proper care of the motors and the customs as

prevailing at each mine relative to greasing and oiling the motors and filling sand boxes and reporting on the conditions of the motors shall continue during the life of this Agreement.

Employees engaged at power houses, substations and pumps operating continuously for 24 hours daily are especially exempted from the seven-hour day provision. Special exemptions for other individual employees than those named above, when 24 hours continuous operation daily is required, are subject to arrangement between the mine management and district officers. Employees so especially exempted are limited to eight hours per day and 40 hours per week.

Holidays

The following holidays are recognized: New Years Day, April First, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

Basic Tonnage Rate

In paying for coal before it is screened, it is not intended to encourage unworkmanlike methods of mining and blasting coal, or to decrease the proportion of screened lump, and any miner will be subject to discipline, who, from ignorance, carelessness, or any other cause, fails to properly mine, shoot and load the coal. If required by the Operator [fol. 1070-26] the miner must block and clean out machine cuttings before shooting.

The basic rate for loading coal shall include the work required to drill, shoot, clean and load the coal, properly timber the working places in the mine, and all other work and customs incidental thereto, and the Operator shall be required to furnish the necessary props and timbers to properly timber all working places. Where necessary to set cross bars, the miner shall assist the timberman to the extent of the labor ordinarily required to properly timber a working place. When ordinary timbers, props, etc., are sent to the miner in mine cars in reasonable amounts he shall unload same.

Where the operator relieves the loader of any part of the regular work or expense required above, a lower piece rate as mutually agreed upon shall be established to compensate the operator for that additional expense.

Miners shall lay all temporary track and jumpers; also lay steel rails where steel ties are used. Where it is customary for the operator to lay all track this practice shall continue during the life of this agreement. It is understood that track materials shall be delivered at as near as practicable to the miner's working face. The present custom of removing jumpers to enable machine to cut shall be continued.

It is understood that the miner shall be responsible for the care of all supplies sent to him for his use, and that he will recover all cars, turns, rails and ties in pillar drawing where possible. Mine cars shall be delivered to the miner at his working face.

[fol. 1070-27] Where a mine worker is required by a mine official to leave his work at the face to perform other labor he shall be paid at the rate of $5.10 per day. If he is called to perform labor where the scale rate is higher than $5.10 he shall be paid the scale rate.

Any change in mining methods or installation of equipment that relieves the Mine Worker of any of the above duties and increases his productive capacity shall be recognized and a piece work rate agreed to therefor properly related to the basic rate.

Where shooting is done a credit on the loading rate will be given the operator by agreement between the management and the district officers of the United Mine Workers.

The standard for basic tonnage rates shall be 2000 pounds per ton.

Miners employed on Day Basis in gang work on mechanical conveyor or scraper mining shall be paid $5.46 per shift as provided in the Appalachian Agreement.

Where tonnage, footage or yardage rates are paid on conveyors or other mechanical loading devices, the percentage of increase to be added to such rates shall be the same percentage of increase as is applied to the basic loading and cutting rates.

Rejects

At mines, where in order to maintain and improve the earnings of both the loaders and the cutters, and where it is impracticable to maintain loader earnings if all the [fol. 1070-28] impurities were removed underground, certain portions of these impurities are loaded and rejected

either by hand or mechanical methods at the tipple. It is agreed that the question of these rejects be referred to the local mine committee who shall, with the mine management, determine the amount and quantity of rejects that reach the coal producers tipples and cleaning plants and an adjustment shall be made in the tare weight of the mine cars sufficient to cover this amount and quantity. Should a disagreement ensue it shall be handled as any dispute arising under the contract.

Operators accepting this plan agree to eliminate the practice of docking for impurities. This, however, does not prevent proper disciplinary measures being used against those who willfully persist in loading dirty coal.

Cleaning and Preparation of Coal

It is the purpose of both Mine Workers and Operators to promote the loading of and payment for clean and merchantable coal, and the Mine Workers, the Mine Committee and the officers of the United Mine Workers, of America pledge themselves to cooperate with the operators in the production of merchantable coal.

In case slate, bone, clay, sulphur or other impurities are loaded with the coal by the miner, the miner or miners so offending shall be subject on first offense to warning; for the second offense, to two days' suspension; and for the third offense within 30 days, five days' suspension or [fol. 1070-29] discharge, at the option of the mine management, provided that in malicious and aggravated cases, the mine management shall have the right to discharge for the first or any subsequent offense. The estimated weight of the impurities shall be deducted from the total weight of the contents of the car.

All machine cuttings that cannot be cleaned by the loader must be gobbed or handled in the customary manner at the mine, and the place thoroughly cleaned before coal is shot. It is also understood that while the place is being cut machine helper will throw or place as much of such cutting as practicable in the gob.

All coal mined, drilled and blasted by the miners must be done in a practical and workmanlike manner and in accordance with the State Mining Laws and such company rules as are not in conflict herewith.

Checkweighman

The Mine Workers shall have the right to a checkweighman of their own choosing to inspect the weighing of coal. Such checkweighman is to be selected from the employees at that mine.

Cars shall be tared at reasonable intervals and without inconvenience to the operation of the mine. Tare shall be taken of the cars in their usual running condition.

At mines not employing a sufficient number of men to maintain a checkweighman the weight credited to the Mine [fol. 1070-30] Workers shall be checked against the billing weights furnished by railroads to the Operators, and on coal trucked from such mines a practical method to check the weights shall be agreed upon. Such weights shall be checked once a month.

The wages of checkweighmen will be collected through the pay office semi-monthly upon a statement of time made by the checkweighman, and approved by the Mine Committee. The amount so collected shall be deducted on a percentage basis, agreed upon by the checkweighman and clerk, from the earnings of the Mine Workers engaged in mining coal and shall be sufficient only to pay the wages and legitimate expenses incident to the office, except where the method of payment is otherwise mutually agreed to.

The checkweighman shall be permitted at all times to be present at the weighing of coal, also have power to checkweigh the same, and during the regular working hours to have the privilege to balance and examine the scales, providing that all such balancing and examination of scales shall only be done in such way and at such time as in no way to interfere with the regular working of the mine. It shall be the further duty of checkweighman to credit each Mine Worker with all merchantable coal mined by him on a proper sheet or book kept by him for that purpose. Checkweighmen shall in no way interfere with the operation of the mine.

It is understood that if the checkweighman is absent from his post for any purpose, the running of coal over the tipple [fol. 1070-31] will not be suspended during his absence.

In case a checkweighman is removed from office as such, either by expiration of term or for other cause, his status as an employee at the mine shall be the same as though he had not served as checkweighman.

Boys

No person under seventeen (17) years of age shall be employed inside any mine nor in hazardous occupations outside any mine.

Exemptions under This Contract

The term Mine Worker as used in this Agreement shall not include mine foremen, assistant mine foremen, fire bosses, or bosses in charge of any classes of labor inside or outside of the mine; or coal inspectors, weighbosses, watchmen, clerks, or members of the executive, supervisory, and technical forces of the Operators.

Management of Mines

The management of the mine, the direction of the working force, and the right to hire and discharge are vested exclusively in the Operator, and the United Mine Workers of America shall not abridge these rights. It is not the intention of this provision to encourage the discharge of Mine Workers, or the refusal of employment to applicants because of personal prejudice or activity in matters affecting the United Mine Workers of America.

[fol. 1070-32] Day men must perform any class of work at the direction of the mine management, provided the scale rate is paid, and the individual is not asked to take a reduced rate of wages for the day. The Company has the right to transfer day men to loading coal without question, provided he is given an average working place.

Mine Committee

A Committee of three (3) Mine Workers, who shall be able to speak and understand the English language, shall be elected at each mine by the Mine Workers employed at such mine. Each member of the Mine Committee shall be an employe of the mine at which he is a committee member, and shall be eligible to serve as a committee member only so long as he continues to be an employee of said mine. The duties of the Mine Committee shall be confined to the adjustment of disputes that the mine management and mine worker, or mine workers, have failed to adjust. The Mine Committee shall have no other authority or exercise any other control, nor in any way interfere with the

operation of the mine; for violation of this clause the Committee or any member thereof may be removed from the Committee.

If any day man refuses to continue at work because of a grievance which has or has not been taken up for adjustment in the manner provided herein, and such action shall seem likely to impede the operation of the mine, the Mine [fol. 1070-33] Committee shall immediately furnish a man or men to take such vacant place or places at the scale rate, in order that the mine may continue at work, and it shall be the duty of any member or members of the United Mine Workers of America who may be called upon by the mine foreman or mine committee to immediately take the place or places assigned to him or them in pursuance hereof.

The mine committee, or any member thereof, shall under no circumstances, go around the mine for any cause whatsoever, unless called upon by the mine foreman or by the miner or day man, who may have a grievance that he cannot settle with the mine foreman, and then only to investigate that grievance with the mine foreman and the employee involved.

Grievances must be taken up after work hours unless otherwise agreed to.

Members of the mine committee employed as day men shall not leave their places of duty during working hours, except with the permission of the mine management or in cases involving the stopping of the mine.

Settlement of Disputes

Should differences arise between the Mine Workers and the Operator as to the meaning and application of the provisions of this Agreement, or should differences arise about matters not specifically mentioned in this Agreement, or should any local trouble of any kind arise at any mine, there shall be no suspension of work on account of such differences, but an earnest effort shall be made to settle [fol. 1070-34] such differences immediately:

First, between the aggrieved party and the mine management;

Second, through the management of the mine and the mine committee;

Third, by a Board consisting of four members, two of whom shall be designated by the Mine Workers and two

by the Operators. Such a board shall be established for the Pocahontas-Tug River, Winding Gulf, New River and Greenbrier districts.

Should the Board fail to agree, the matter shall be referred to the umpire who shall be selected by the Joint Committee signatories hereto within 30 days from the effective date of this agreement. The decision of the umpire in any event shall be final.

Expense and remuneration incident to the services of the umpire shall be paid jointly by the Operators and Mine Workers.

Each producing district may appoint a commissioner who can act with a representative of the United Mine Workers of America for the purpose of adjusting disputes or settling grievances arising under the contract.

A record of all cases settled under this contract between the district representative of the United Mine Workers of America and the mine management or between the Operator's commissioner and the district representative of the United Mine Workers of America shall be filed with the joint board of each producing district.

[fol. 1070-35] Pending the hearing of disputes the Mine Workers shall not cease work because of any dispute; and a decision reached at any stage of the proceedings shall be binding on both parties thereto, and shall not be subject to re-opening by any other party or branch of either association except by mutual agreement.

Discharge Cases

When a Mine Worker has been discharged from his employment and he believes he has been unjustly dealt with, it shall be a case arising under the method of settling disputes herein provided. In all discharge cases should it be decided under the rules of this Agreement that an injustice has been dealt the Mine Worker, the Operator shall reinstate and compensate him at the rate based on the earnings of said Mine Worker prior to such discharge, provided, however, that such case shall be taken up and disposed of within five days from the date of discharge, and provided further that the mine management may permit the man discharged to return to work pending the decision in the case without prejudice to either party in handling the case.

Illegal Suspension of Work

A strike or stoppage of work on the part of the Mine Workers shall be a violation of this Agreement. Under no circumstances shall the Operator discuss the matter under dispute with the Mine Committee or any representative of the United Mine Workers of America during sus- [fol. 1070-36] pension of work in violation of this Agreement.

Irregular Work

When any Mine Worker absents himself from his work for a period of two days without the consent of the Operator, other than because of proven sickness, he may be discharged. If a man persists in working irregularly he may be discharged. When a Machine Runner or any employee upon whose work other employees are dependent, absents himself from work without giving advance notice to the Mine Foreman, he shall forfeit his position.

Safety Practice

Reasonable rules and regulations of the Operator for the protection of the persons of the Mine Workers and the preservation of property shall be complied with. The practical application and the use of safety appliances is viewed with favor by the United Mine Workers of America. The United Mine Workers of America also view with favor the formation of Dr. Holmes Safety Chapters.

Engineers and Pumpers Duties

When required by the management, engineers, pumpers, firemen, power plant and sub-station attendants shall under no condition suspend work but shall at all times protect all the company's property under their care, and operate fans and pumps and lower — hoist men or supplies as may be [fol. 1070-37] required to protect the company's coal plant.

Shifts

The operator shall have the right during the entire period of this Agreement to work all the mines, or any one or more of them, extra shifts with different crews.

When the mine works only one shift it shall be in the day time, but this shall not prevent cutting and loading coal at night in addition to the day shift cutting and loading.

When it is necessary in any mine to call men to work on other days than those which the mine operates in order to rush headings for the development of working places, to keep pillar lines in proper condition, to maintain equipment in safe and efficient operating condition, clean up slate falls or repair trolley lines and such other work of like character that may interfere with the mine work the next operating day, to make the improvements to the mines such as track work that would ordinarily interfere with the operation. It is understood the management shall make such calls at its own discretion provided, however, no man is required to work in any one week a greater number of hours than provided in the Appalachian Agreement.

Pay Day

Pay shall be made semi-monthly and at least twice each month.

[fol. 1070-38]

Subcontracting

The practice of subcontracting and the hiring of back hands for the mining and loading of coal shall not be permitted. This section shall not prohibit a group of miners working gang work in isolated places where the compensation paid is not less than the prices provided for in this contract.

Machine Work

No extra compensation shall be paid either cutter or loader because of the direction of a working place with reference to the butts or faces, or because it is driven an angle therewith.

The cutter shall cut the coal as directed by the management. In bottom cutting, if the cutter leaves a spragg or a thick bottom in excess of the thickness as directed by the mine management, he shall be notified to remove the same and should he fail or refuse, he shall be charged one dollar ($1.00) for each spragg and fifty cents (50¢) for each run of thick bottom for breast machine or its equivalent width, the same to be paid to the loader who shall remove the same.

All bottom coal must be taken up anl loaded by the loader if required by the employer.

Each machine crew shall be required to keep the cutting up in the section designated. Machine territory shall be

divided so that the territory designated for each machine may be cut normally in seven hours time, and each machine crew shall be required to keep the cutting up in the section so designated. If for any reason this cannot be done in reg-
[fol. 1070-39] ular hours, they shall work sufficient overtime to insure all loaders having coal to load.

The machine men may be required to either remove bits from the chain or cutter head, or place a shield over the cutter head to make the machine safe to be moved.

Discipline

All questions of dispute shall be considered and finally disposed of as provided for in this contract.

The United Mine Workers of America recognize the very fundamentals upon which collective bargaining is founded is the strict observance of agreements by both parties to this contract. Local strikes will not be tolerated. Every member of the United Mine Workers of America under the jurisdiction of this agreement pledges himself to cooperate with and assist every officer of the organization of the United Mine Workers of America in preventing local strikes. Every officer of the United Mine Workers of America pledges himself to do everything possible to make this declaration effective.

Equal Turn

The operator shall see that an equal turn is offered each miner and that he shall be given a fair chance to obtain the same.

Other Conditions Not Specified

All terms and conditions not specified under this contract to continue as they now exist during the life of this contract
[fol. 1070-40] except where changed by mutual consent.

Equipment and Machinery

The employer shall be entitled to the fullest use of all machinery and equipment at the mines.

Equipment—Loading Coal

The Operator shall at all times be at liberty to load any transportation equipment whatsoever, regardless of owner-

ship, and to sell and deliver such loaded equipment in any market, and to any person, firm or corporation they may desire.

Coking Plants and Cleaning Plants

Proper local agreements shall be made to provide for the continuous operation of coking and cleaning plants. Agreements for the operation of coking plants shall be made locally.

Increased Costs

During the period of this agreement no deviation therefrom, and no change in customary working conditions other than herein required, shall be permitted or approved by the United Mine Workers of America which will, directly or indirectly, increase the cost of producing coal to the employer, or which will, directly or indirectly, decrease the rate of pay of the employees.

[fol. 1070-41]

Loading Mine Cars

In case of loss in transit, the company shall not be held responsible, except where a wreck occurs.

Smithing

One-half of one per cent of the earnings of the coal loader shall be the charge for Smithing. The Operator agrees to use every effort to have the mine worker's tools repaired and sharpened with as little delay as possible; it being understood that there shall be no charge for blacksmithing unless the operator furnishes a blacksmith.

Explosives

All explosives, tools and supplies incidental to the mining of coal shall be furnished by the mine worker at his expense. The operators shall have the sole right to designate the kind, type, size, quality and quantity of explosives that shall be used in any shot hole. Where Operators sell explosives the explosives shall be furnished to the mine workers at cost, which is to include handling, transportation and insurance.

Electric Cap Lamps

When electric cap lamps are furnished by the Operator, the charge shall not exceed (8) cents per day for each shift

a lamp is used. Any damage to or breakage of the lamp shall be repaired by the Operator and the cost thereof [fol. 1070-42] charged to the mine worker in whose possession the lamp was when the damage resulted.

House Coal

The price of coal for domestic use by employees shall be at the rate of $2.25 per month plus actual haulage charge from the mine.

In no case shall coal be taken from the mine cars or railroad cars, and may only be picked up from the tipple by special permission of the management.

Where employees live in other than company owned houses, away from the plant, the charge shall be $2.25 per ton plus actual haulage charges.

Starting Time

The starting time of any mine worker of the mine or tipple shall be left exclusively to the management, and thirty minutes shall be taken for lunch period.

Funeral

On the day that death by accident occurs in a mine, for that day only the miners may cease work, but under no circumstances shall a mine be laid idle for a funeral. This is, however, not to prevent individuals from attending a funeral.

Burial Fund

At mines where burial funds are or may be established, adequate protection by surety bond shall be given to the funds of the burial fund also the disbursements of moneys. [fol. 1070-43] Procedure shall be covered by by-laws that have been agreed to by the employees and the management.

At mines where agreed by-laws are already in effect, such by-laws shall continue.

Insurance

Parties to this agreement encourage group insurance for employees, but it shall not be made a requisite to employment.

Any disagreements or misunderstandings arising relative to the application of the insurance shall be referred to a committee composed of six members, three from the miners and three from the management.

Hospitalization

All collections for hospitals will continue under the terms and conditions of this agreement, provided, however, that injuries compensatory under the terms of Workmen's Compensation Laws will be paid for by the Operator. If, however there is any dissatisfaction with list hospital contracts the dispute may be taken up as a grievance under this contract.

Pick Mining

In accordance with local custom in each district, pick coal rates shall be the basic loading rate plus the shortwall cutting rate, except in the Pocahontas and Tug River districts, in which the basic tonnage rate only will apply. The basic tonnage rate shall also apply in other Smokeless districts where conditions are identical with Pocahontas-Tug River [fol. 1070-44] by agreement between the mine management and the district officers of the Mine Workers.

Expiration of Contract

This Agreement shall become effective October 1, 1935, and shall continue in effect until April 1, 1937.

Check-Off

The dues of the United Mine Workers of America, not exceeding One Dollar ($1.00) per month, shall be checked off the wages of members of said organization by the Operator at the rate of Fifty Cents ($0.50) per half month, and shall be remitted to the Secretary-Treasurer of the District, United Mine Workers of America, on the date of the regular pay day, or within three (3) days thereafter, for distribution to the branches of the United Mine Workers of America; and no other assessments shall be so checked off except upon the authorization of the International Executive Board of the United Mine Workers of America.

Initiation Fees of the United Mine Workers of America, in sums not to exceed One Dollar ($1.00) per man in any one

pay period, shall be deducted by the Operator and remitted to the Financial Secretary of the Local Union, United Mine Workers of America. Under no circumstances shall the Initiation Fee for any one man exceed Ten Dollars ($10.00).

Deductions for dues and initiation fees of the United Mine Workers of America shall follow wages of checkweighmen, [fol. 1070-45] accident and death benefits, rent, doctor, hospital and mining expense.

Penalties

Should any Mine Worker or Mine Workers at the mine cause the mine or part of the mine to shut down in violation of this rule, every employee at said mines, except those who continue to work, shall have deducted from his or their earnings the sum of two dollars per day for each part of a day they may remain idle. Should any operator or his representative lock the men out for the purpose of forcing a settlement of any grievance, or cause the mine to shut down in violation of this rule, he shall be fined two dollars per employee for each day or part of a day the mine is thus thrown idle.

All fines provided for in this agreement shall be automatically collected and any operator failing to collect such fines shall pay a penalty of four dollars for each employee subject to be fined. The proceeds of all fines arising under this clause shall be paid to such charities as may be agreed upon by the representatives of the coal Company and the representatives of the employee. In no case shall any fine be refunded except by mutual agreement of the accredited representatives of the operators and the miners.

It is further agreed that where any employee enters suit in the civil courts to collect any fines collected in accordance herewith, the employees who are parties to this contract [fol. 1070-46] shall reimburse the operator for the expense incurred on account of such suit.

Labor Classifications and Day Rates

The following hourly and day wage rates shall be paid in all mines in the Greenbrier, New River, Winding Gulf and Pocahontas-Tug River districts.

Inside Rates:

	Rate per hour	Rate per day
Machine Runners	.780	5.46
Machine Runners Helpers	.757	5.30
Motormen	.751	5.26
Brakemen	.729	5.10
Rock Drillers	.751	5.26
Rock Drillers Helpers	.694	4.86
Driver single	.729	5.10
Drivers double	.729	5.10
Coal Drillers	.729	5.10
Trackmen	.729	5.10
Track Helpers	.694	4.86
Timbermen	.729	5.10
Timbermen Helpers	.694	4.86
Bratticemen	.729	5.10
Bratticemen Helpers	.694	4.86
Wiremen and Bonders	.729	5.10
Wire and Bond Helpers	.694	4.86
Pumpers	.694	4.86
Bottom Cagers	.729	5.10
Bottom Cager Helper	.694	4.86
Couplers	.694	4.86
[fol. 1070-47] Trappers, Flaggers & Switch Throwers	.500	3.50
Greasers	.500	3.50
Dumpers Inside	.729	5.10
Dumpers Helpers Inside	.694	4.86
Slate Shooters	.729	5.10
Shot Firers	.729	5.10
Loading Machine Operators (coal)	.928	6.50
Loading Machine Operators Helpers (coal)	.780	5.46
Loading Machine Operators (rock)	.889	6.22
All other Inside Labor	.694	4.86

Outside Rates:

Dumper	.620	4.34
Car Dumper Helpers	.586	4.10
R. R. Car Droppers	.620	4.34
R. R. Car Cleaners	.586	4.10
R. R. Car Trimmers	.620	4.34
Blacksmith (First Class)	.814	5.70

Inside Rates—Continued	Rate per hour	Rate per day
Blacksmith (Second Class)	.729	5.10
Blacksmith Helpers	.620	4.34
Car Repairmen	.620	4.34
Car Repairmen Helpers	.586	4.10
Bit Sharpeners	.620	4.34
Sand Dryers	.586	4.10
Sub-Station Operators	.586	4.10
Greasers	.586	4.10
Slate Pickers	.500	3.50
Cripples, boys and old men	.500	3.50
Lamp House Man	.620	4.34
[fol. 1070-48] Lamp House Helpers	.586	4.10
Tipple Mechanics	.620	4.34
Tipple Mechanic Helpers	.620	4.34
Tipple Operator	.620	4.34
Hoisting Engineer	.729	5.10
Firemen	.586	4.10
Carpenters	.751	5.26
Carpenters Helpers	.620	4.34
Masons	.751	5.26
Washer Man	.620	4.34
Boom Man	.620	4.34
Electrician	.751	5.26
Electrician Helpers	.620	4.34
Power House Eng.	.751	5.26
Teamsters & Truck Drivers	.586	4.10
Common able-bodied outside labor	.586	4.10
Boys unskilled outside labor	.500	3.50
Aerial Tramway operator	.620	4.34
Slate Hoist Operator	.620	4.34
Steam Locomotive Eng.	.751	5.26
Brakemen	.729	5.10

Where Sub-Stations are isolated from the mines, present conditions of employment shall prevail.

The present rates for operators of mechanical motors for handling slate on the outside shall be increased fifty (50) cents per day.

The above rates are minimum rates but it is agreed that present rates, if above these minimums, shall be increased fifty cents per day.

[fol. 1070-49] Schedule

Basic rates—Pocahontas-Tug River District—Tonnage rates per 2,000 pounds runs of mine coal:

Machine Loading	$0.517
Cutting, Shortwall Machine	.065
Cutting, Track Machine	.045

Yardage

In all mines the usual Pocahontas Sulphur and bone shall be handled without compensation. Where a parting or middleman occurs, in lieu of the usual Pocahontas bone, four inches of the parting or middleman shall be removed free; all over four inches shall be paid for at the rate of $0.072 per inch per lineal yard.

The usual draw slate in excess of four inches shall be paid for at the rate of $0.072 per inch per lineal yard.

Sand rock top that requires drilling and shooting shall be handled by company men.

In Witness Whereof, each of the Parties hereto, Pursuant to Proper Authority, has Caused This Agreement to be Signed.

United Mine Workers of America, John L. Lewis, President. Philip Murray, Vice-President. [fol. 1070-50] Thomas Kennedy, Secretary-Treasurer. Van. A. Bittner, Pres. Dist. No. 17. Wm. Blizzard, Vice.-Pres. Dist. No. 17. Jesse Aquino. John Gatherum. F. R. Coleman. G. W. White. H. L. Smith. Otto Bailey. H. G. James. Chris Dresich. G. C. Skaggs. Laurence Hindle. J. H. Carter.

Smokeless Coal Board, L. T. Putman, President. P. P. Kerr, Vice-President. H. C. Faust, Secretary. J. Wade Bell. Edw. Graff. R. J. Burmeister. P. C. Graney. M. L. Garvey. R. E. Salvati. H. F. Warden.

AVERAGE VALUE PER TON OF COAL AT THE MINES, BY STATES. ——— 1913 - 19

STATE	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
Alabama	$1.31	$1.34	$1.28	$1.37	$2.27	$2.85	$2.96	$3.65	$3.08	$2.34	$2.52	$2.34	$2.12	$2.21
Alaska	(1)	(1)	(1)	4.00	4.92	5.45	5.66	5.85	6.46	5.45	6.30	5.62	4.89	5.26
Arkansas	1.76	1.72	1.79	1.92	2.56	3.67	3.70	4.56	4.37	4.14	4.01	4.06	3.96	3.77
Arizona	———	———	———	———	———	———	———	———	———	———	———	———	———	(1)
California	3.54	2.85	2.54	2.12	2.30	2.70	3.38	4.36	4.66	3.87	3.94	4.19	4.75	3.69
Colorado	1.52	1.66	1.58	1.62	2.22	2.69	2.78	3.49	3.55	3.16	3.22	3.05	2.94	2.78
Georgia	1.41	1.44	1.72	1.79	2.53	3.59	3.71	5.00	2.14	4.06	4.32	3.62	3.32	2.89
Illinois	1.14	1.12	1.10	1.25	1.88	2.32	2.30	3.08	2.74	2.69	2.80	2.27	2.19	2.16
Indiana	1.11	1.10	1.10	1.27	1.99	2.29	2.22	3.16	2.57	2.85	2.48	2.16	2.02	1.98
Idaho	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Iowa	1.79	1.79	1.78	1.86	2.35	3.02	3.09	3.94	3.81	3.72	3.69	3.31	3.14	3.07
Kansas	1.67	1.64	1.66	1.78	2.31	2.91	3.05	3.87	3.85	3.66	3.21	3.03	2.88	2.84
Kentucky	1.05	1.02	1.01	1.19	2.17	2.55	2.46	4.11	2.69	3.02	2.54	1.88	1.72	1.74
Maryland	1.24	1.27	1.28	1.56	2.46	2.77	2.73	4.63	3.61	3.37	3.08	2.17	1.97	2.21
Michigan	1.99	1.99	2.05	2.25	3.22	3.83	3.88	4.98	4.87	5.05	4.73	4.33	4.20	4.12
Missouri	1.73	1.73	1.73	1.91	2.43	3.02	3.21	4.16	3.92	3.81	3.40	3.29	3.07	2.93
Montana	1.74	1.75	1.62	1.73	2.11	2.53	2.67	3.16	3.26	3.19	3.07	2.96	2.59	2.46
Nebraska	———	———	———	———	———	———	———	———	———	———	———	(1)	———	———
Nevada	———	(1)	(1)	———	———	———	———	———	———	———	———	———	———	———
New Mexico	1.46	1.61	1.44	1.47	1.86	2.68	3.11	3.68	3.91	3.49	3.66	3.51	3.37	3.18
North Carolina	———	———	———	———	———	4.75	3.84	7.02	5.76	4.94	3.66	3.92	4.34	4.12
North Dakota	1.52	1.52	1.45	1.49	1.80	2.45	2.50	2.87	2.69	2.65	2.36	2.06	1.85	1.76
Ohio	1.10	1.13	1.08	1.33	2.48	2.58	2.22	3.82	2.65	3.23	2.43	2.03	1.93	1.88
Oklahoma	2.05	2.06	2.01	2.09	2.81	3.64	3.83	4.80	4.62	4.11	3.77	3.69	3.30	3.18

Kansas	1.67	1.64	1.66	1.78	2.31	2.91	3.05	3.87	3.85	3.66	3.21	3.05	2.88	2.84
Kentucky	1.05	1.02	1.01	1.19	2.17	2.55	2.46	4.11	2.69	3.02	2.54	1.88	1.72	1.74
Maryland	1.24	1.27	1.28	1.56	2.46	2.77	2.73	4.63	3.61	3.37	3.02	2.17	1.97	2.21
Michigan	1.99	1.99	2.05	2.25	3.22	3.83	3.88	4.93	4.87	5.05	4.73	4.33	4.20	4.12
Missouri	1.73	1.73	1.73	1.91	2.43	3.08	3.21	4.16	3.92	3.81	3.40	3.29	3.07	2.98
Montana	1.74	1.75	1.62	1.73	2.11	2.53	2.67	3.16	3.26	3.19	3.07	2.96	2.59	2.46
Nebraska	----	----	----	----	----	----	----	----	----	----	----	(1)	----	----
Nevada	----	(1)	(1)	----	----	----	----	----	----	----	----	----	----	----
New Mexico	1.46	1.61	1.44	1.47	1.86	2.68	3.11	3.68	3.91	3.49	3.66	3.51	3.37	3.16
North Carolina	----	----	----	----	----	4.75	3.84	7.02	5.76	4.94	3.66	3.92	4.34	4.19
North Dakota	1.52	1.52	1.45	1.49	1.80	2.45	2.50	2.87	2.69	2.65	2.36	2.06	1.85	1.74
Ohio	1.10	1.13	1.08	1.33	2.48	2.58	2.22	3.82	2.65	3.23	2.43	2.03	1.93	1.96
Oklahoma	2.05	2.06	2.01	2.09	2.81	3.64	3.83	4.80	4.62	4.11	3.77	3.69	3.30	3.18
Oregon	2.53	2.78	2.84	2.68	3.38	2.81	3.40	4.49	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania-Bituminous	1.11	1.07	1.06	1.30	2.44	2.59	2.42	3.77	2.78	3.11	2.75	2.26	2.10	2.13
South Dakota	1.96	1.73	1.55	2.03	2.90	2.80	3.17	3.60	2.81	2.84	2.41	2.99	2.91	2.91
Tennessee	1.14	1.14	1.13	1.23	2.19	2.83	2.77	4.02	3.35	2.89	2.73	2.13	1.85	1.90
Texas	1.77	1.69	1.65	1.56	1.77	2.63	2.69	3.75	2.64	2.32	1.82	1.50	1.55	1.60
Utah	1.65	1.59	1.58	1.62	2.07	2.71	2.76	3.22	3.35	3.14	2.89	2.69	2.56	2.37
Virginia	1.01	1.01	.98	1.06	2.00	2.51	2.55	3.99	3.06	2.58	2.76	2.04	1.84	1.92
Washington	2.38	2.20	2.17	2.27	2.68	3.46	3.58	3.88	4.03	3.98	3.72	3.65	3.62	3.61
West Virginia	1.01	.99	.97	1.18	2.32	2.56	2.49	4.34	2.84	2.93	2.65	1.82	1.71	1.84
Wyoming	1.56	1.55	1.46	1.55	1.93	2.39	2.60	2.98	3.24	3.04	2.76	2.71	2.79	2.74
TOTAL	1.18	1.17	1.13	1.32	2.26	2.58	2.49	3.75	2.89	3.02	2.68	2.30	2.04	2.06

*U. S. Bureau of Mines

Note:
1. Included in California

VALUE PER TON OF COAL AT THE MINES, BY STATES. ——— 1913 - 1934.*

1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
$2.96	$3.65	$3.08	$2.34	$2.58	$2.34	$2.18	$2.29	$2.25	$2.25	$2.06	$2.05	$1.88	$1.54	$1.57	
5.66	5.85	6.46	5.45	6.30	5.62	4.89	5.26	5.25	5.25	5.25	5.25	5.25	5.00	4.99	
3.70	4.56	4.37	4.14	4.01	4.06	3.96	3.77	3.48	3.38	3.38	3.36	3.04	2.74	2.66	
----	----	----	----	----	----	----	(1)	(1)	(1)	(1)	(1)	5.90	4.80	5.03	
3.38	4.36	4.66	3.87	3.94	4.19	4.75	3.67	2.81	3.13	3.96	4.67	5.06	3.68	3.60	
2.78	3.49	3.55	3.16	3.22	3.05	2.94	2.78	2.78	2.80	2.65	2.62	2.41	2.19	2.17	
3.71	5.00	2.14	4.06	4.32	3.62	3.32	2.89	3.04	3.10	3.05	2.54	2.09	1.76	1.86	
2.30	3.08	2.74	2.89	2.50	2.27	2.19	2.14	2.16	2.00	1.87	1.74	1.70	1.53	1.46	
2.22	3.16	2.57	2.85	2.48	2.16	2.02	1.98	2.03	1.78	1.63	1.59	1.45	1.30	1.28	
(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	
3.09	3.94	3.81	3.72	3.59	3.31	3.14	3.07	3.15	2.86	2.82	2.67	2.53	2.40	2.26	
3.05	3.87	3.85	3.66	3.21	3.05	2.88	2.84	2.80	2.44	2.25	2.15	1.90	1.75	1.75	
2.46	4.11	2.69	3.02	2.54	1.88	1.72	1.74	1.73	1.56	1.54	1.49	1.27	.99	1.13	
2.73	4.63	3.61	3.37	3.02	2.17	1.97	2.21	2.07	1.84	1.75	1.63	1.45	1.28	1.39	
3.88	4.93	4.87	5.05	4.73	4.33	4.20	4.12	4.31	4.26	3.61	3.51	3.04	2.73	2.88	
3.21	4.16	3.92	3.81	3.40	3.29	3.07	2.98	2.84	2.58	2.43	2.33	2.00	1.64	1.80	
2.67	3.16	3.26	3.19	3.07	2.96	2.59	2.46	2.35	2.27	2.22	2.00	1.81	1.66	1.54	
----	----	----	----	----	(1)	----	----	----	----	----	----	----	----	----	
----	----	----	----	----	----	----	----	(1)	----	(1)	----	----	----	----	
3.11	3.68	3.91	3.49	3.66	3.51	3.37	3.16	3.13	3.18	3.17	3.06	2.96	2.63	2.50	

Not available.

3.09	3.94	3.81	3.72	3.89	3.31	3.14	3.07	3.15	2.86	2.82	2.67	2.53	2.40	2.26	
3.05	3.87	3.85	3.66	3.21	3.03	2.88	2.84	2.80	2.44	2.25	2.15	1.90	1.75	1.75	
2.46	4.11	2.69	3.02	2.54	1.88	1.72	1.74	1.73	1.56	1.54	1.49	1.27	.99	1.13	
2.73	4.63	3.61	3.37	3.02	2.17	1.97	2.21	2.07	1.84	1.75	1.63	1.45	1.28	1.39	
3.88	4.93	4.87	5.05	4.73	4.33	4.20	4.12	4.31	4.26	3.61	3.51	3.04	2.73	2.88	
3.21	4.16	3.92	3.81	3.40	3.29	3.07	2.98	2.84	2.58	2.43	2.33	2.00	1.64	1.80	
2.67	3.16	3.26	3.19	3.07	2.96	2.59	2.46	2.35	2.27	2.22	2.00	1.81	1.66	1.54	
----	----	----	----	----	(1)	----	----	----	----	----	----	----	----	----	
----	----	----	----	----	----	----	----	(1)	----	(1)	----	----	----	----	
3.11	3.68	3.91	3.49	3.66	3.51	3.37	3.16	3.13	3.18	3.17	3.06	2.96	2.63	2.50	
3.84	7.02	5.76	4.94	3.66	3.92	4.34	4.19	3.58	3.30	3.39	3.51	3.81	3.16	3.48	
2.50	2.87	2.69	2.65	2.36	2.06	1.85	1.74	1.70	1.68	1.70	1.63	1.42	1.26	1.26	
2.22	3.82	2.65	3.23	2.43	2.03	1.93	1.96	1.92	1.69	1.51	1.40	1.24	1.11	1.20	
3.83	4.80	4.62	4.11	3.77	3.69	3.30	3.18	3.03	2.96	3.04	2.78	2.42	2.11	2.11	
3.40	4.49	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	
2.42	3.77	2.78	3.11	2.75	2.26	2.10	2.13	2.05	1.90	1.80	1.72	1.59	1.34	1.37	
3.17	3.60	2.81	2.84	2.41	2.99	2.91	2.91	3.04	2.80	2.96	2.42	2.33	1.77	1.75	
2.77	4.02	3.35	2.89	2.73	2.13	1.85	1.90	1.84	1.73	1.69	1.64	1.47	1.32	1.39	
2.69	3.75	2.64	2.32	1.82	1.50	1.55	1.60	1.51	1.34	1.45	1.57	1.49	1.42	1.01	
2.76	3.22	3.35	3.14	2.89	2.69	2.56	2.37	2.32	2.53	2.47	2.47	2.22	1.99	1.91	
2.55	3.99	3.06	2.58	2.76	2.04	1.84	1.92	1.80	1.71	1.64	1.61	1.45	1.21	1.23	
3.58	3.88	4.03	3.98	3.72	3.65	3.62	3.61	3.50	3.46	3.43	3.23	3.14	2.99	2.81	
2.49	4.34	2.84	2.93	2.65	1.82	1.71	1.84	1.78	1.59	1.55	1.50	1.31	1.06	1.14	
2.60	2.98	3.24	3.04	2.76	2.71	2.79	2.74	2.69	2.64	2.54	2.49	2.40	2.23	2.15	
2.49	3.75	3.89	3.02	2.68	2.30	2.04	2.06	1.99	1.86	1.78	1.70	1.54	1.31	1.34	1.82 (preliminary)

Not available.

SHIPMENTS INTO INDIANA, YEARS 1920 to 1934, INCLUSIVE

	ORIGINS	1920	1921	1922	1923	1924	1925	1926	1927	
Western Penna.	(Pittsburgh	33,456	8,510	17,331	19,685	853	242	123	344	
	(Freeport	78	---	—	---	---	—	—	—	
	(Butler-Mercer	45	—	845	1,249	444	—	—	—	
	(Connellsville	4,265	1,003	3,699	1,466	154	77	119	856	
	TOTAL	37,844	9,513	21,875	22,400	1,451	319	242	1,200	
	Fairmont	67,441	24,189	38,461	73,196	80,434	34,717	10,151	63,922	
Southern High Volatile	(Kanawha	1,076,090	1,214,256	1,147,734	1,718,918	2,117,910	2,339,170	2,346,033	2,436,451	2
	(Kenova	38,718	46,722	91,603	100,946	190,303	228,351	158,676	157,602	
	(Thacker	138,661	99,447	256,763	297,123	363,098	376,376	340,667	519,843	
	(N.E.Ky.-Big Sandy	167,577	181,484	416,570	347,481	450,146	474,334	510,263	522,676	
	(Hazard	242,430	601,449	637,601	718,655	770,452	878,646	765,057	787,799	
	(Harlan	302,037	366,072	541,796	492,609	554,565	640,080	706,019	980,471	
	(McRoberts	106,404	91,069	156,718	200,799	284,065	268,040	255,725	257,371	
	(South Jellico	9,768	506	7,481	8,368	19,380	70,459	56,978	64,575	
	(Clinch Valleys	9,934	26,611	59,003	44,609	43,116	43,079	50,181	71,118	
	(Stonega	107,635	42,209	26,206	40,090	22,275	14,875	19,577	22,185	
	(Clinchfield	NF	NF	NF	NF	NF	NF	NF	NF	
	TOTAL	2,199,254	2,669,825	3,340,475	3,969,598	4,755,308	5,127,390	5,209,176	5,764,089	5
Southern Low Volatile	(Virginian	NF	NF	NF	NF	NF	53,498	224,880	310,176	
	(New River	56,850	110,868	96,943	173,700	265,909	304,618	270,078	233,797	
	(Pocahontas	338,458	301,511	340,707	390,164	436,328	453,322	405,702	409,295	
	(Tug River	76,200	120,971	118,160	111,514	159,945	194,584	176,026	188,298	
	TOTAL	471,508	533,350	555,810	675,378	862,182	1,006,022	1,076,686	1,141,483	1
Ohio	(Massillon	2,611	380	349	543	101	52	—	—	
	(Middle	9,095	4,157	10,222	3,130	467	706	128	163	
	(Ohio #8	165,503	100,625	71,158	89,218	90,072	79,585	81,125	22,064	
	(Cambridge	10,186	2,379	4,763	7,091	3,500	445	—	—	
	(Crooksville	47,151	6,998	17,755	7,526	2,510	757	421	210	
	(Hocking	174,438	85,021	88,917	92,252	61,650	43,913	29,959	10,963	
	(Shawnee	4,815	1,732	1,452	917	—	—	—	—	
	(Jackson	51,996	11,704	35,465	14,949	5,959	1,821	534	—	
	(Pomeroy	48,986	19,102	18,718	16,553	8,307	9,495	15,657	13,105	
	TOTAL	514,750	232,098	248,797	232,179	172,566	136,773	127,824	46,495	
	GRAND TOTALS	3,290,797	3,468,975	4,205,418	4,972,751	5,811,941	6,305,221	6,426,679	7,017,199	7

Authority: Ohio Bureau of Coal Statistics

TS INTO INDIANA, YEARS 1920 to 1934, INCLUSIVE

D.Ex. 24

923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
9,685	853	242	123	344	70	321	717	—	525	85	88
—	—	—	—	—	—	—	—	—	—	—	—
1,249	444	—	—	—	—	—	—	—	—	—	—
1,466	154	77	119	856	49	—	450	—	—	—	242
2,400	1,451	319	242	1,200	119	321	1,167	000	525	85	330
3,196	30,434	34,717	10,151	63,922	24,139	44,548	46,029	23,402	38,019	26,879	23,691
5,918	2,117,910	2,339,170	2,346,033	2,438,451	2,534,027	2,632,708	2,123,505	1,566,344	1,416,527	1,451,422	1,498,208
0,946	190,303	228,331	158,676	157,602	143,808	151,886	133,932	93,629	103,394	79,736	49,980
7,123	363,098	376,376	340,667	519,843	467,095	495,608	386,654	299,781	236,687	240,187	213,559
3,481	450,146	474,334	510,263	526,676	579,385	602,669	533,485	391,782	364,971	376,039	402,581
8,655	770,452	678,646	765,057	787,799	799,338	722,592	736,734	757,904	668,632	581,691	487,747
2,609	554,565	640,080	706,019	980,471	989,898	870,393	723,349	550,512	452,974	457,804	519,914
0,799	224,065	252,040	255,725	257,371	236,511	284,929	239,381	162,308	156,101	135,069	131,958
8,368	19,380	70,459	56,978	64,573	39,288	50,934	43,271	31,649	25,458	24,269	32,296
4,609	43,116	43,079	50,181	71,118	66,895	75,597	76,715	80,784	74,844	74,690	62,286
0,090	22,275	14,875	19,577	22,185	37,385	49,115	39,151	25,456	22,966	25,904	10,945
NF	NF	NF	NF	NF	NF	NF	NF	3,384	2,810	5,034	10,228
6,598	4,755,308	5,127,390	5,209,176	5,764,089	5,833,623	5,936,429	5,056,177	3,964,533	3,526,364	3,451,847	3,419,700
NF	NF	53,498	224,880	310,105	310,635	284,051	272,239	254,454	191,566	131,168	209,798
3,700	265,909	304,618	270,078	233,797	226,581	234,406	276,397	270,628	236,412	250,017	189,038
0,164	436,328	453,322	405,702	409,295	447,854	529,384	433,422	308,286	297,911	337,089	348,781
1,514	159,945	194,584	176,026	188,298	169,788	158,874	130,192	110,145	99,107	92,015	84,774
5,378	862,182	1,006,022	1,076,686	1,141,493	1,154,858	1,206,715	1,112,250	943,513	834,996	810,289	832,391
543	101	52	—	—	—	—	—	—	—	—	—
3,130	467	705	128	163	38	579	1,151	1,498	2,354	155	162
9,218	90,072	79,585	81,125	22,064	32,675	55,550	56,029	47,815	44,264	42,973	25,127
7,091	3,500	445	—	—	—	—	292	1,274	481	684	122
7,526	2,510	757	421	210	1,217	2,291	7,278	10,884	5,159	10,259	4,415
8,252	61,650	43,913	29,959	10,953	18,292	62,234	71,233	39,345	24,416	40,976	43,139
917	—	—	—	—	—	—	—	—	—	—	—
4,949	5,959	1,821	534	—	700	3,029	7,663	6,705	3,763	5,838	6,635
6,553	8,307	9,495	15,657	13,105	14,502	18,638	13,860	2,973	3,416	3,023	6,485
2,179	172,566	136,773	127,824	46,495	67,424	142,321	157,506	110,494	83,853	103,848	86,083
2,751	5,811,941	6,305,221	6,426,679	7,017,199	7,080,163	7,330,334	6,373,129	5,141,942	4,467,757	4,392,948	4,362,195

SHIPMENTS INTO OHIO, 1920 TO 193[illegible] INCLUSIVE

	Origins	1920	1921	1922	1923	1924	1925	1926	1927	[illegible]
Western Penna.	(Pittsburgh	4,747,355	3,693,009	4,294,322	6,701,567	5,397,189	4,413,269	5,145,549	4,229,267	5,[illegible]
	(Freeport	797,718	447,839	529,191	1,075,660	406,615	973,465	682,378	249,069	[illegible]
	(Butler-Mercer	63,372	26,660	145,926	53,093	18,102	47,415	37,501	57,128	[illegible]
	(Connellsville	2,855,855	2,778,941	2,604,819	3,403,790	4,845,609	5,639,311	6,077,745	6,671,415	6,[illegible]
	Total	8,464,300	6,946,449	7,574,258	11,234,110	10,667,515	11,073,450	11,943,173	11,206,879	12,[illegible]
	Fairmont	988,118	458,313	849,554	1,160,752	773,873	1,078,051	1,391,110	2,801,656	2,[illegible]
Southern High Vol.	(Kanawha	3,075,972	3,144,572	3,590,790	3,906,218	4,618,304	5,476,830	5,644,278	6,071,771	5,[illegible]
	(Kenova	158,774	155,755	379,465	391,301	529,624	596,341	503,091	633,035	[illegible]
	(Thacker	1,128,858	538,361	1,246,197	1,642,067	1,747,857	2,064,210	2,098,558	2,177,190	1,[illegible]
	(N.E. Ky.-Big Sandy	1,937,758	804,595	1,898,950	2,279,388	2,249,708	2,441,456	2,478,704	2,119,494	1,[illegible]
	(Hazard	849,505	1,374,119	1,419,252	1,624,840	1,545,954	1,548,786	1,954,636	1,575,659	1,[illegible]
	(Harlan	748,733	850,358	1,354,618	1,213,889	1,043,206	1,507,640	1,735,829	2,114,730	2,[illegible]
	(Kokoomerts	662,382	418,349	566,395	553,165	591,067	868,529	1,027,310	926,225	[illegible]
	(So. Jellico	46,901	21,837	138,784	97,641	67,329	129,465	118,136	144,801	[illegible]
	(Clinch Valleys	29,265	73,199	156,621	180,394	185,159	204,605	215,083	230,394	[illegible]
	(Stonega	11,941	4,701	266,836	16,979	16,690	31,913	44,031	51,741	[illegible]
	(Clinchfield	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	
	Total	8,650,089	7,385,846	11,018,238	11,905,882	12,594,898	14,869,775	15,819,656	16,045,040	14,[illegible]
Southern Low Vol.	(Virginian	N.F.	N.F.	N.F.	N.F.	N.F.	120,096	365,275	495,929	[illegible]
	(New River	201,385	237,565	425,216	522,940	614,701	728,824	799,879	885,638	[illegible]
	(Pocahontas	1,190,384	1,215,586	1,962,078	2,017,021	1,928,987	2,313,729	2,578,588	2,373,936	2,[illegible]
	(Tug River	231,185	275,391	415,488	551,156	564,492	772,516	831,911	948,297	[illegible]
	Total	1,622,954	1,728,542	2,802,782	3,091,117	3,108,180	3,935,165	4,375,653	4,703,800	4,[illegible]
Ohio	(Massillon	188,702	58,668	37,486	56,606	33,630	43,937	40,116	27,999	[illegible]
	(Middle	2,968,270	1,655,868	1,836,758	2,060,377	1,433,343	1,690,140	1,498,013	1,063,876	[illegible]
	(Ohio No. 8	5,090,053	4,361,632	4,203,282	5,368,435	5,168,060	5,620,996	5,609,717	3,191,755	2,[illegible]
	(Cambridge	1,480,919	731,978	684,348	948,215	760,245	694,909	640,343	391,634	[illegible]
	(Crooksville	1,113,681	386,435	510,897	724,354	495,722	341,520	385,766	213,117	[illegible]
	(Hocking	3,430,112	2,168,309	1,638,930	2,518,855	1,926,911	1,530,622	1,583,366	855,113	[illegible]
	(Shawnee	148,614	69,982	43,908	50,875	28,812	8,296	6,229	4,825	[illegible]
	(Jackson	1,114,318	278,073	505,390	428,831	204,895	63,522	42,934	24,126	[illegible]
	(Pomeroy	551,149	283,790	201,903	427,951	175,481	374,838	165,990	141,173	[illegible]
	Total	16,085,818	9,994,735	9,662,902	12,584,499	13,227,103	10,368,780	10,272,474	6,213,618	5,[illegible]
	GRAND TOTAL	35,811,309	26,513,885	31,907,734	39,976,360	37,371,569	41,325,221	44,002,066	40,970,993	40,[illegible]

Authority:- Ohio Bureau of Coal Statistics

O. 1920 TO 1934 INCLUSIVE

D.Ex. 24-A

3	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
.367	5,397,189	4,413,269	5,145,549	4,229,267	5,422,803	6,092,278	4,962,657	3,653,497	2,865,932	2,297,167	2,616,482
.460	406,615	973,455	682,378	249,069	467,346	676,169	579,076	672,937	351,376	499,138	953,952
.093	18,102	47,415	37,501	57,128	27,495	7,945	3,767	1,335	2,255	1,071	5,690
.790	4,845,609	5,639,311	6,077,745	6,671,415	6,930,193	6,650,734	4,846,584	2,796,762	1,140,229	797,309	1,403,009
.710	10,667,515	11,073,450	11,943,173	11,206,879	12,847,837	13,427,126	10,392,084	7,124,531	4,359,792	3,594,685	4,979,133
.752	773,873	1,078,051	1,391,110	2,801,656	2,982,861	2,948,673	2,567,425	1,734,438	1,389,437	1,523,529	1,698,804
.218	4,618,304	5,476,830	5,644,278	6,071,771	5,540,037	5,324,939	4,331,211	3,597,576	3,088,253	3,093,071	3,161,213
.301	529,624	596,341	503,091	633,035	554,344	519,472	427,556	303,649	309,361	237,201	162,739
.867	1,747,857	2,064,210	2,098,558	2,177,190	1,818,236	1,965,280	1,590,888	831,971	836,322	1,070,600	865,734
.888	2,249,708	2,441,456	2,478,704	2,119,494	1,729,293	1,411,480	1,136,842	854,073	723,697	744,914	917,461
.440	1,545,954	1,548,786	1,954,636	1,575,659	1,634,137	1,716,887	1,478,467	1,478,073	1,350,052	1,208,815	1,081,544
.889	1,043,206	1,507,640	1,735,829	2,114,730	2,137,409	1,941,277	1,227,921	675,524	600,378	849,443	964,398
.265	591,067	868,529	1,027,310	926,225	706,986	593,244	420,294	304,432	249,144	186,968	263,343
.241	67,329	129,465	118,136	144,801	154,616	142,083	105,631	86,699	91,995	56,653	67,847
.394	185,159	204,605	215,083	230,394	234,669	228,964	218,714	200,876	190,974	187,286	211,357
.979	16,690	31,913	44,031	51,741	47,946	42,985	23,075	18,602	19,467	23,722	17,112
N.P.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	13,537	56,963	84,661	90,156
.382	12,594,898	14,869,775	15,819,656	16,045,040	14,557,573	13,886,611	10,960,590	8,365,012	7,516,606	7,743,337	7,802,904
N.F.	N.F.	120,096	365,275	495,929	512,092	511,081	470,940	378,481	291,255	340,748	365,582
.540	614,701	728,824	799,879	885,638	819,747	837,678	817,479	762,005	668,595	740,767	710,253
.021	1,928,987	2,313,729	2,578,588	2,373,936	2,712,158	3,085,755	2,016,154	1,402,013	1,061,818	1,450,519	1,609,936
.356	564,492	772,516	831,911	948,297	853,798	901,236	823,673	773,996	704,040	896,643	819,659
.117	3,108,180	3,935,165	4,575,653	4,703,800	4,897,795	5,335,750	4,128,246	3,316,491	2,725,708	3,428,677	3,505,430
.606	33,630	43,937	40,116	27,999	17,598	19,925	15,077	12,580	7,183	7,503	6,637
.777	1,433,343	1,690,140	1,498,013	1,033,876	892,779	1,073,311	1,015,062	1,119,727	1,097,324	1,146,696	1,238,746
.435	5,168,060	5,620,996	5,609,717	3,191,755	2,774,604	3,283,430	3,104,256	3,308,934	2,707,291	4,048,935	3,801,268
.215	760,245	694,509	640,343	391,634	222,828	673,151	760,057	638,591	549,458	601,902	701,623
.454	195,722	341,520	385,766	213,117	214,714	227,149	226,239	292,409	150,257	268,057	300,909
.455	1,926,911	1,530,622	1,583,366	855,113	816,523	1,741,112	1,728,799	1,498,339	680,858	1,104,792	1,375,918
.875	28,812	8,296	6,229	4,825	509	- -	- -	- -	- -	494	2,295
.831	204,695	63,522	42,934	24,126	28,497	74,277	171,637	196,002	106,566	219,384	366,954
.851	175,481	374,838	465,990	441,173	366,742	203,228	183,420	149,415	117,025	108,389	173,935
.699	15,227,103	10,368,780	10,272,474	6,213,618	5,334,794	7,235,633	7,204,547	7,215,997	5,415,971	7,806,152	7,968,275
.460	37,371,569	40,325,221	44,002,066	40,970,993	40,620,860	42,893,793	35,252,692	27,756,475	21,407,514	24,096,380	25,954,546

Authority:- Ohio Bureau of Coal Statistics

SHIPMENTS INTO MICHIGAN, 1920 TO 1934 INCLUSIVE

	Origin	1920	1921	1922	1923	1924	1925	1926	1927	1928
Western Penna.	(Pittsburgh	165,268	146,479	219,888	293,659	33,241	8,839	32,867	33,996	21,5
	(Freeport	184,270	48,233	68,081	221,963	54,435	72,424	84,207	184,266	47,8
	(Butler-Mercer	3,881	- -	11,581	2,966	- -	- -	- -	- -	
	(Connellsville	29,034	3,825	66,025	22,763	1,655	1,393	93	9,115	21,5
	Totals	382,453	198,537	365,575	541,351	89,321	82,656	117,167	227,377	91,0
	Fairmont	372,067	163,384	205,549	448,020	228,664	147,426	98,117	146,842	72,1
Southern High Vol.	(Kanawha	3,723,074	3,474,428	3,940,367	5,079,985	5,121,100	5,684,623	5,633,506	5,813,665	5,147,1
	(Kenova	53,467	49,603	189,974	240,881	342,017	329,836	310,915	475,345	451,6
	(Thacker	547,471	549,135	987,812	1,648,780	1,673,278	1,921,525	1,736,993	1,757,168	1,814,0
	(N.E. Ky. -Big Sandy	694,905	780,683	888,970	1,224,378	1,707,805	1,812,104	2,164,280	2,252,708	2,218,7
	(Hazard	587,762	798,104	896,613	1,262,309	1,268,152	1,156,316	1,289,236	1,271,051	1,231,2
	(Harlan	942,221	971,059	1,266,566	1,677,770	1,846,144	2,261,367	2,609,068	2,764,687	2,638,9
	(McRoberts	205,446	269,755	514,190	524,402	655,485	873,141	871,591	575,935	520,6
	(So. Jellico	17,817	4,892	56,123	84,058	73,443	74,832	115,250	139,526	- -
	(Oakdale	N.F.	N.F.	14,106	2,040	1,167	107	N.F.	N.F.	144,3
	(Clinch Valleys	20,225	48,605	88,785	119,716	92,748	74,326	105,720	112,699	184,6
	(Stonega	12,784	16,934	60,053	29,612	19,090	33,665	25,581	23,970	29,1
	(Clinchfield	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.
	Totals	6,805,172	6,963,198	8,903,559	11,893,931	12,800,429	14,221,842	14,862,140	15,186,554	14,380,0
Southern Low Vol.	(Virginian	N.F.	N.F.	N.F.	N.F.	N.F.	96,615	233,508	350,893	454,6
	(New River	107,915	142,639	215,624	393,559	515,668	626,966	586,900	654,870	732,8
	(Pocahontas	296,323	525,363	722,522	743,771	827,680	1,025,522	1,030,350	967,626	1,136,0
	(Tug River	409,368	336,671	436,975	768,948	731,491	780,841	1,057,232	1,036,148	1,109,9
	Totals	813,606	1,004,673	1,375,121	1,906,278	2,074,832	2,529,947	2,907,990	3,009,537	3,433,3
Ohio	(Massillon	4,489	781	187	495	N.F.	N.F.	N.F.	31	N.
	(Middle	48,374	8,837	58,237	12,883	2,683	3,059	3,081	951	
	(Ohio No. 8	616,098	279,765	280,825	376,106	226,631	164,218	252,677	98,298	90,0
	(Cambridge	289,094	151,774	117,045	136,985	20,479	2,223	4,761	3,733	
	(Crooksville	317,839	56,695	141,691	90,606	22,150	15,466	28,586	2,197	6,0
	(Hocking	1,438,110	709,851	755,957	925,407	483,632	277,672	352,104	92,193	133,0
	(Shawnee	35,872	7,035	4,951	2,387	762	961	N.F.	N.F.	N
	(Jackson	484,778	47,103	128,107	111,161	43,050	10,560	10,374	987	1,0
	(Pomeroy	386,940	100,122	158,686	162,665	35,694	70,211	82,301	59,655	48,0
	Totals	3,621,595	1,362,023	1,645,686	1,818,695	855,041	544,103	733,884	258,045	281,0
	GRAND TOTAL	11,994,892	9,696,815	12,495,410	16,608,275	16,028,327	17,526,274	18,719,298	18,828,355	18,258,0

Authority:- Ohio Bureau of Coal Statistics.

SHIPMENTS INTO MICHIGAN, 1920 TO 1934 INCLUSIVE

D.Ex.24-B

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
659	33,241	8,839	32,867	33,996	21,537	27,236	49,486	41,963	42,773	43,059	53,620
963	54,435	72,421	84,207	184,266	47,899	189,253	146,037	62,911	7,149	38,287	93,344
	--	--	--	--	47	92	--	--	95	--	41
966	--	--	--	--	--	--	--	--	--	--	86,848
763	1,655	1,393	93	9,115	21,588	12,045	43,823	121,310	33,543	10,695	
351	89,321	82,656	117,167	227,377	91,071	228,626	239,346	226,184	83,560	92,041	233,853
020	228,664	147,426	98,117	146,842	72,414	157,145	203,056	212,408	140,081	162,742	215,465
985	5,121,100	5,684,623	5,633,506	5,813,665	5,147,195	5,302,855	3,993,681	3,131,492	2,929,317	3,140,155	3,036,071
881	342,017	329,836	310,915	475,345	451,665	442,758	376,297	233,784	236,881	217,139	179,360
780	1,673,278	1,921,525	1,736,993	1,757,168	1,814,026	1,939,881	1,527,964	1,059,319	759,262	792,605	1,138,639
378	1,707,805	1,812,104	2,164,280	2,252,708	2,218,745	2,193,703	1,680,102	1,120,660	1,035,076	1,259,744	1,304,351
309	1,268,152	1,156,316	1,289,236	1,271,051	1,231,267	1,197,230	1,108,701	973,397	933,106	882,796	913,655
770	1,816,144	2,261,367	2,609,068	2,764,687	2,638,994	2,296,350	2,097,407	1,787,563	1,327,105	1,337,177	1,583,408
402	655,485	873,141	871,591	575,935	520,664	524,778	453,106	366,729	280,409	278,369	465,952
058	73,143	74,832	115,250	139,526	--	--	71,772	--	36,173	36,392	43,167
040	1,167	107	N.F.	N.F.	114,365	136,049	N.F.	38,542	N.F.	N.F.	0
716	92,748	74,326	105,720	112,699	184,637	229,202	151,962	113,784	99,534	91,176	99,525
612	19,090	33,665	25,581	23,970	29,121	46,508	14,772	9,401	8,317	8,958	23,363
F.	N.F.	N.F.	N.F.	N.F.	N..F.	N.F.	N.F.	1,528	26,896	14,962	36,989
931	12,800,429	14,221,842	14,862,140	15,186,554	14,380,079	14,309,314	11,475,764	8,836,199	7,672,076	8,059,473	8,824,380
F.	N.F.	36,615	233,508	350,893	454,625	437,906	397,674	360,150	282,913	349,669	431,390
559	515,668	626,966	586,900	654,870	732,821	784,725	673,496	561,749	534,546	528,772	609,047
771	827,680	1,025,522	1,030,350	967,626	1,136,031	1,351,107	1,112,291	908,568	901,339	966,482	1,174,302
948	731,434	780,841	1,057,232	1,036,148	1,109,904	1,218,895	1,075,048	782,603	803,368	794,311	762,214
278	2,074,832	2,529,947	2,907,990	3,009,537	3,433,381	3,792,633	3,258,709	2,613,070	2,522,166	2,639,234	2,976,953
495	N.F.	N.F.	N.F.	31	N.F.	N.F.	50	N.F.	N.F.	N.F.	0
883	2,683	3,059	3,081	951	162	3,881	22,417	23,865	20,704	11,761	29,811
106	226,631	164,248	252,677	98,298	90,005	243,788	431,831	467,912	582,628	709,691	594,455
985	20,479	2,223	4,761	3,733	828	1,216	13,910	12,654	10,703	2,625	8,157
606	22,150	15,466	28,586	2,197	6,244	16,845	31,760	50,666	18,598	39,987	59,840
407	483,632	277,672	352,104	92,193	133,529	421,458	418,220	365,992	226,934	402,226	537,799
387	762	964	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	0
161	43,050	10,560	10,374	987	1,751	10,771	47,341	85,322	17,182	29,424	94,294
665	35,694	70,211	82,301	59,655	48,718	52,053	46,585	45,317	37,442	59,308	90,184
595	835,041	544,403	733,884	258,045	281,237	750,052	1,012,114	1,051,726	944,491	1,355,022	1,444,546
775	16,028,327	17,526,274	18,719,298	18,828,355	18,258,182	19,237,770	16,188,989	12,939,589	11,332,374	12,208,512	13,665,191

Ohio Bureau of Coal Statistics.

TREND OF LAKE CARGO SHIPMENTS 1920 TO 1931 INCLUSIVE

	Origins	1920	1921	1922	1923	1924	1925	1926	1927
Western Penna. High Vol.	(Pittsburgh	6,203,444	5,907,489	4,002,214	7,978,024	3,249,241	2,106,567	2,506,752	2,547,736
	(Connellsville	N.F.	N.F.	374,936	468,847	548,329	367,420	598,494	903,917
	(Northern Pa.	1,044,579	723,819	832,339	1,082,095	482,481	5,096	825,481	145,497
	Total	7,248,023	6,631,308	5,209,484	9,528,966	4,280,051	2,479,083	3,930,727	3,597,150
Ohio High Vol.	(Northern Ohio	453,829	208,994	194,608	361,483	57,327	15,724	29,724	- -
	(Ohio No. 8	3,799,023	3,678,554	1,287,123	3,768,377	2,846,721	1,314,628	1,140,440	298,358
	(Cambridge	778,776	981,997	61[illegible],736	952,067	1,005,002	4,382	68,181	109
	(Hocking (*)	2,575,086	668,577	1,288,269	920,011	90,119	115,496	173,986	46,367
	Total	7,606,714	5,538,122	3,385,736	5,941,938	3,999,169	1,450,230	1,412,331	344,834
	Moundsville	114,414	328,952	186,784	634,868	519,040	760,621	326,917	728,188
	Fairmont	1,169,627	685,562	1,183,185	2,534,247	883,565	1,622,387	2,141,600	3,877,248
	Total	1,284,041	1,014,514	1,369,969	3,165,135	1,402,605	2,383,008	2,468,517	4,605,436
Southern High Volatile	(Kenova-Thacker	143,645	190,911	761,962	382,961	977,870	1,794,504	1,595,612	2,099,995
	(Kanawha	3,020,946	3,687,136	2,671,251	4,561,564	5,755,085	7,803,321	7,549,264	9,457,235
	(East Kentucky	1,375,323	2,624,194	3,091,089	3,297,323	3,514,305	6,606,912	6,933,593	7,178,584
	(Virginia	92	- -	43,208	723	55,450	98,877	59,930	104,520
	(Tennessee	185	3,731	25,667	- -	- -	17,564	82,630	43,574
	Total	4,540,191	6,505,972	6,593,177	8,262,571	10,302,710	16,321,178	16,221,029	18,883,908
Northern Low Volatile	(Clearfield	- -	- -	- -	- -	- -	- -	- -	- -
	(Altoona-Meyersdale	22,410	30,182	81,420	31,315	1,605	1,398	1,875	10,475
	(Cumb.-Piedmont	21,459	4,352	676	796	5,146	4,023	3,030	- -
	Total	43,869	34,534	82,096	32,111	6,751	5,421	4,905	10,475
Southern Low Volatile	(New River	233,633	208,890	271,630	448,566	353,049	396,221	431,300	712,787
	(Virginian	N.F.	N.F.	N.F.	N.F.	N.F.	152,517	(A)	599,870
	(Pocahontas-Tug River	1,434,183	2,430,559	1,665,556	2,445,507	2,630,656	3,143,185	3,685,280	4,096,938
	Total	1,667,816	2,639,449	1,937,186	2,894,073	2,983,705	3,691,923	4,116,580	5,409,595
	GRAND TOTAL	22,390,654	22,363,899	18,577,653	29,828,784	22,974,991	26,330,843	28,154,089	32,851,398

(*) - Includes Hocking, Crooksville, Shawnee, Pomeroy, and Jackson Districts.
(A) - Included in Pocahontas-Tug River Figures.
(B) - Divided as between New River and Pocahontas-Tug River.
Authority: Ohio Bureau of Coal Statistics

CSB - ASB
2/19/36

SHIPMENTS 1920 TO 1931 INCLUSIVE

D.Ex. 24-C

1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
,778,024	3,249,241	2,106,567	2,506,752	2,547,736	4,293,850	5,177,201	5,511,341	4,687,932	4,328,005	5,224,628	6,132,415
688,847	548,329	367,420	598,494	903,917	1,387,791	1,446,984	2,090,224	1,710,400	1,812,020	1,343,907	1,939,178
,082,095	482,481	5,096	825,481	145,497	941,325	1,250,258	939,834	873,240	717,327	856,187	1,324,754
,528,966	4,280,051	2,479,083	3,930,727	3,597,150	6,622,966	7,874,443	8,541,399	7,271,572	6,857,352	7,424,722	9,396,347
561,483	57,327	15,724	29,724	- -	4,094	27,725	33,313	62,301	789	- -	- -
,598,377	2,846,721	1,314,628	1,140,440	298,358	1,021,643	2,414,634	2,624,199	2,543,306	1,075,224	1,704,593	1,754,808
552,067	1,605,002	4,382	68,181	109	- -	554,614	630,446	335,001	320,896	313,242	262,959
320,011	90,119	115,496	173,986	46,367	25,955	202,123	75,137	37,999	14,467	78,838	122,831
,241,938	3,999,169	1,450,230	1,412,331	344,834	1,051,692	3,199,096	3,363,095	2,978,607	1,411,376	2,096,673	2,140,598
634,888	519,040	760,621	326,917	728,188	894,740	706,228	447,152	124,772	282,939	278,248	349,668
,534,247	883,565	1,622,387	2,141,600	3,877,248	2,705,013	1,379,226	1,034,821	865,491	905,460	940,718	816,885
,165,135	1,402,605	2,383,008	2,468,517	4,605,436	3,599,753	2,085,454	1,481,673	990,263	1,188,399	1,218,966	1,166,553
662,961	977,870	1,794,504	1,595,612	2,099,995	1,827,924	2,374,998	1,946,615	2,249,543	1,396,942	1,794,270	2,076,694
,891,564	5,755,085	7,803,321	7,549,264	9,457,235	7,162,015	7,640,903	7,108,607	5,277,520	4,540,848	5,464,943	5,600,881
,997,323	3,514,305	6,606,912	6,933,593	7,178,584	6,652,035	6,814,482	6,661,271	5,023,597	4,131,354	5,400,061	6,120,868
723	55,450	98,877	59,930	104,520	143,831	72,168	35,756	184,972	107,668	157,514	197,126
- -	- -	17,564	82,630	43,574	42,074	43,043	46,118	72,606	9,760	22,678	101,043
,552,571	10,302,710	16,321,178	16,221,029	18,883,908	15,827,879	16,945,594	15,798,367	12,808,236	10186,572	12,839,475	16,096,612
- -	- -	- -	- -	- -	87,444	- -	440,579	610,450	704,969	1,208,131	1,187,950
51,315	1,605	1,398	1,875	10,475	- -	170,773	51,655	- -	2,613	2,549	4,252
796	5,146	4,023	3,030	- -	2,903	3,178	3,596	28,680	10,739	18,327	13,883
52,111	6,751	5,421	4,905	10,475	90,347	173,951	475,830	639,130	718,321	1,229,007	1,206,085
448,566	353,049	396,221	431,300	712,787	620,492	801,781	1,195,782	1,339,129	1,210,316	1,251,241	1,658,779
N.F.	N.F.	152,517	(A)	599,870	756,192	581,132	(B)	(B)	(B)	(B)	(B)
,645,507	2,630,656	3,143,185	3,685,280	4,096,938	4,832,800	6,271,798	5,983,777	4,388,352	2,991,055	5,291,269	5,204,562
,094,073	2,983,705	3,691,923	4,116,580	5,409,595	6,209,484	7,654,711	7,179,559	5,727,481	4,201,371	6,542,510	6,863,341
,928,784	22,974,991	28,330,843	28,154,089	32,881,398	33,402,121	32,933,249	36,859,923	30,415,291	24,563,391	31,361,353	34,869,536

, Pomeroy, and Jackson Districts.
es.
ontas-Tug River.

TREND OF ALL TIDEWATER SHIPMENTS SINCE 1920

(Gross tons)

	Origins	1920	1921	1922	1923	1924	1925	1926	1927
Northern Low Vol.	(Clearfield	11,081,121	8,521,444	5,121,579	8,872,089	7,018,726	6,595,233	8,270,203	5,949,904
	(Cumb.-Pied.-Meyersdale	4,549,220	2,692,581	2,074,514	2,441,732	2,080,626	3,045,127	3,767,240	3,842,560
	Total	15,630,341	11,214,025	7,196,093	11,313,821	9,099,358	9,640,360	12,037,443	9,792,464
Northern High Vol.	(Greensburg	236,795	201,151	95,822	90,379	265,046	197,406	329,233	186,469
	(Pittsburgh	498,245	36,604	8,963	41,556	110	12,653	116,262	2,956
	(Westmd.-Northern W.Va.	7,469,134	5,219,459	2,531,378	5,122,619	3,435,075	3,650,180	8,395,714	3,911,425
	(Other High Vol.(North)	1,922,086	908,519	447,581	1,074,712	543,768	578,354	2,457,504	146,086
	Total	10,126,260	6,365,733	3,083,744	6,329,266	4,243,999	4,438,593	11,298,713	4,248,936
Southern High Vol.	(Clinchfield	477,827	154,954	191,020	216,271	138,750	201,250	539,129	184,146
	(Clinch Valley	914,526	412,324	288,904	180,583	66,713	47,703	375,624	27,563
	(N. E. Ky.	10,603	169,805	71,760	75,394	4,138	522,689	1,199,321	846,128
	(East. Tenn.	53,171	1,559	- -	2,262	- -	- -	706	- -
	(Kanawha	3,641,176	1,907,780	905,105	1,927,778	1,756,853	2,436,389	4,936,138	2,320,595
	(Kenova	1,416	2,746	7,340	20,157	12,798	5,639	592,050	23,245
	(Stonega-Norton	44 ,674	293,153	627,553	1,141,746	877,542	896,000	1,165,696	974,907
	(S. W. Virginia	473,609	24,005	33,723	41,578	16,150	14,256	215,810	83,785
	(Thacker	532,085	436,022	156,239	91,955	79,253	121,008	1,048,410	155,716
	Total	6,550,057	3,402,348	2,283,644	3,697,724	2,952,197	4,244,934	10,072,884	4,616,083
Southern Low Vol.	(New River	3,672,203	2,457,722	2,290,356	2,745,990	2,933,556	4,244,415	4,276,203	4,054,408
	(Pocahontas	5,586,170	4,381,061	4,985,418	3,912,424	4,792,305	5,088,032	6,382,969	4,933,051
	(Tug River	950,566	1,289,036	850,092	451,992	810,598	863,969	1,254,179	840,168
	(Virginian	5,505,403	4,198,396	4,732,535	5,048,788	4,825,809	4,625,892	6,083,374	5,299,366
	Total	15,714,342	12,326,215	12,858,401	12,159,194	13,362,268	14,822,308	17,996,725	15,126,993
	GRAND TOTAL	48,021,000	33,308,321	25,421,882	33,500,005	29,657,816	33,146,195	51,405,765	33,784,476

CSB
ASB
2/19/35

Authority:- Tidewater Bituminous Coal Statistical B

TIDEWATER SHIPMENTS SINCE 1920

(Gross tons)

D.Ex. 24-D

1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
72,089	7,018,726	6,595,233	8,270,203	5,949,904	5,502,310	6,153,829	7,153,580	6,395,262	5,450,981	5,078,172	5,597,909
41,732	2,080,626	3,045,127	3,767,240	3,842,560	4,212,580	4,046,346	3,450,696	3,019,609	2,065,070	1,796,338	1,904,609
13,821	9,099,358	9,640,360	12,037,443	9,792,464	9,714,890	10,200,175	10,604,276	9,414,871	7,516,051	6,874,510	7,502,516
90,379	265,046	197,406	329,233	186,489	411,580	502,652	491,128	367,612	224,892	304,327	186,360
41,556	110	12,653	116,262	2,916	- -	- -	3,271	1,786	4,782	92,775)	1,730,636
22,619	3,435,075	3,650,180	8,395,714	3,911,425	2,157,304	2,425,269	2,574,708	1,778,264	1,198,876	1,265,214)	
74,712	543,768	578,354	2,457,504	146,086	718,591	725,084	168,355	233,045	185,706	122,367	86,751
29,266	4,243,999	4,438,593	11,298,713	4,248,936	3,287,475	3,653,025	3,237,462	2,380,707	1,614,256	1,784,683	2,003,737
16,271	138,750	201,250	539,129	184,146	64,083	31,054	26,320	12,896	9,916	12,085	14,279
80,583	66,713	47,703	375,624	27,563	181,261	128,558	70,621	19,879	16,848	2,231	25,017
75,394	4,138	522,689	1,199,321	846,126	670,899	670,248	735,023	745,066	619,596	442,124	441,891
2,262	- -	- -	706	- -	- -	- -	- -	- -	- -	1,309	- -
27,776	1,756,853	2,436,389	4,936,138	2,320,595	1,901,771	2,289,995	2,519,935	3,257,283	2,953,538	2,837,783	2,737,149
20,157	12,798	5,639	592,050	23,245	15,973	28,793	47,710	28,000	12,592	7,793	9,377
41,746	877,542	896,000	1,165,696	974,907	1,074,656	1,426,867	1,080,272	842,350	653,955	602,044	475,246
41,578	16,150	14,256	215,810	83,785	102,789	121,862	105,345	94,581	26,511	27,238	65,733
91,955	79,253	121,008	1,048,410	155,716	62,187	152,819	122,794	47,150	65,555	117,618	109,006
97,724	2,952,197	4,244,934	10,072,684	4,616,083	4,073,819	4,850,196	4,708,020	5,047,205	4,358,511	4,050,225	3,877,698
45,990	2,933,556	4,244,415	4,276,203	4,054,408	4,762,598	4,952,957	5,068,486	4,844,148	3,806,675	4,739,039	5,136,836
12,424	4,792,306	5,088,032	6,382,969	4,933,051	4,381,347	5,021,353	4,720,950	4,220,173	3,470,050	3,511,983	3,622,070
51,992	810,598	863,969	1,254,179	840,168	782,052	843,746	907,007	661,166	536,661	604,644	792,394
48,788	4,825,809	4,625,892	6,083,374	5,299,366	3,996,431	4,452,575	3,948,882	3,379,472	2,606,176	2,653,446	2,728,331
59,194	13,362,268	14,822,308	17,996,725	15,126,993	13,922,428	15,270,631	14,645,325	13,104,959	10,419,562	11,509,112	12,279,631
00,005	29,657,816	33,146,195	51,405,765	33,784,476	30,998,612	33,974,027	33,195,083	29,947,742	23,908,380	24,218,530	25,663,582

Authority:- Tidewater Bituminous Coal Statistical Bureau

YEAR. 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932

Illinois Production.
(Shipping Mines)

Source of Information.

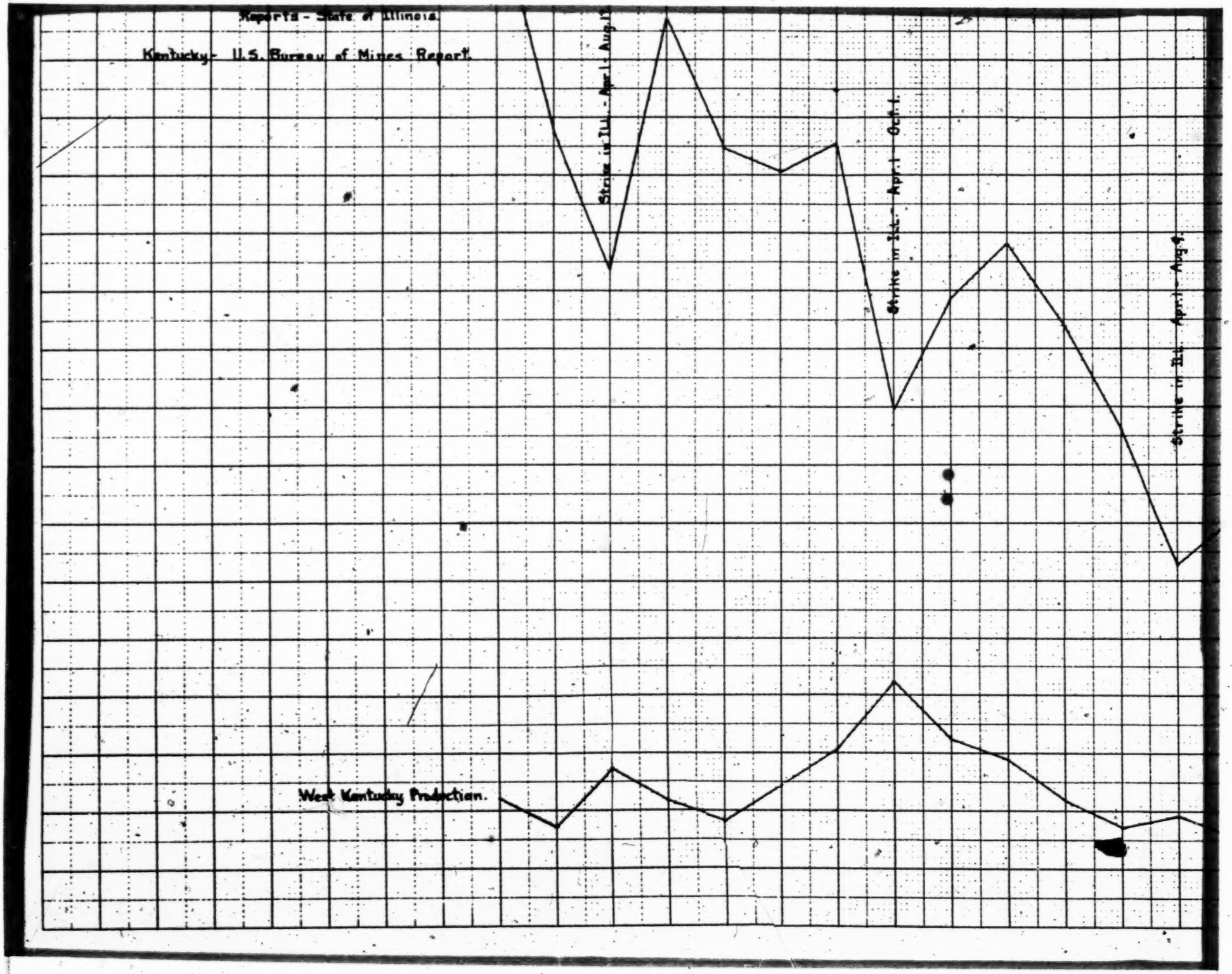
Illinois - Dept. of Mines and Minerals Reports - State of Illinois.

Kentucky - U.S. Bureau of Mines Report.

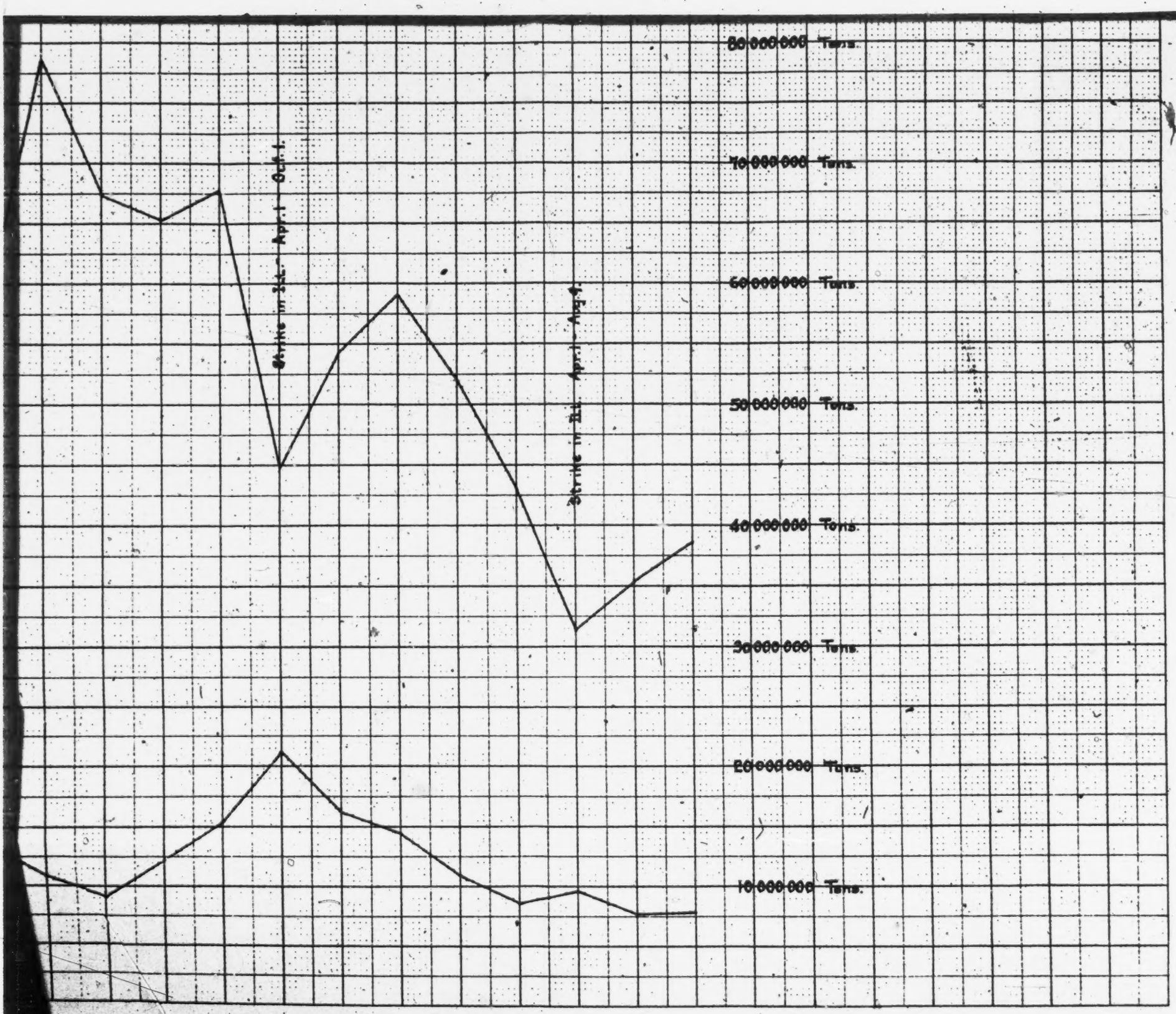
Strike in Ill. - April - Aug. 17

Strike in Ill. - Apr. 1 - Oct. 1.

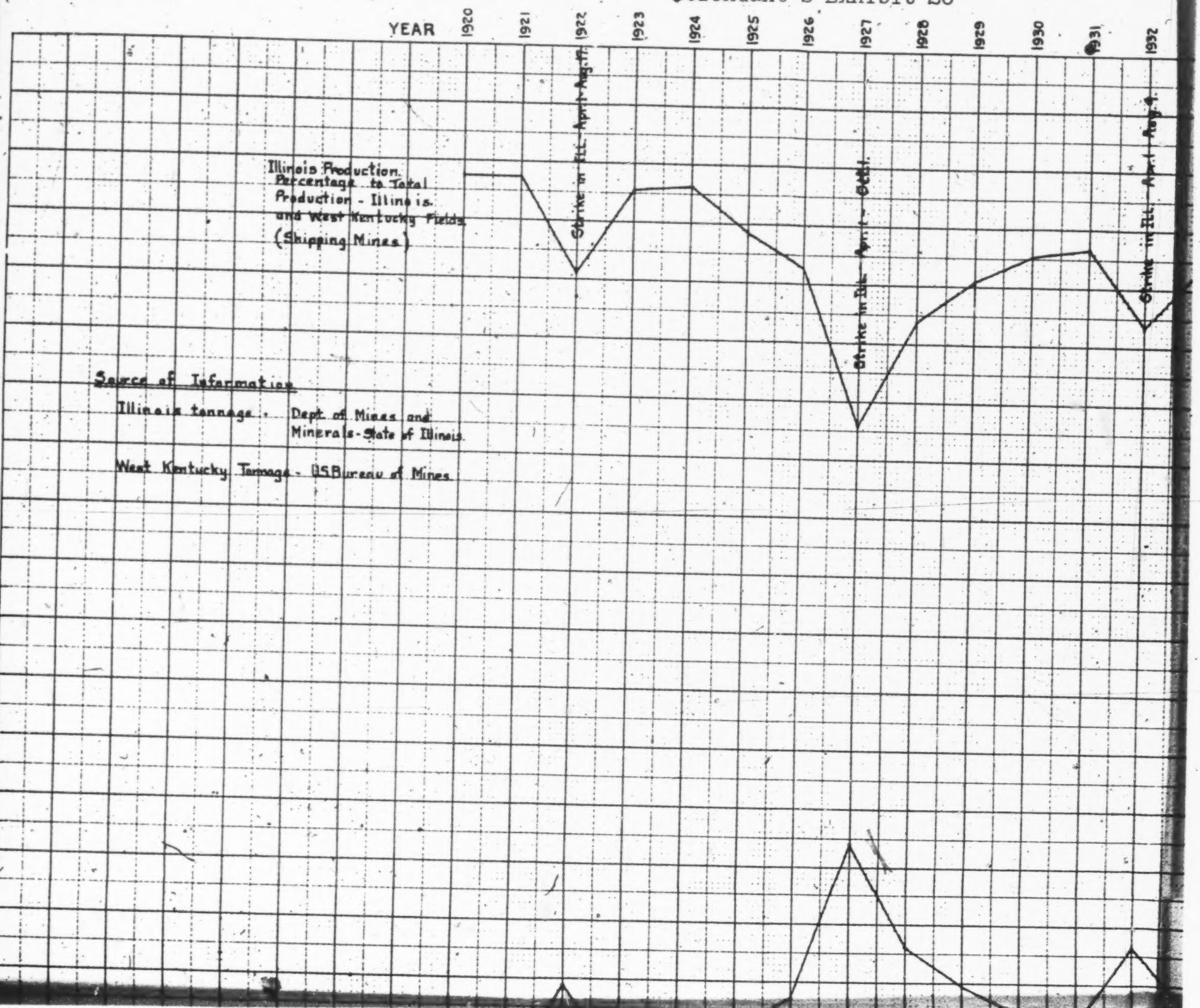
Strike in Ill. April - Aug. 9


Reports - State of Illinois.
Kentucky - U.S. Bureau of Mines Report.
Strike in Ill. - Apr. 1 - Aug. 1?
Strike in Ky. - Apr. 1 - Oct. 1.
Strike in Ill. Apr. 1 - Aug. 9.
West Kentucky Production.

Defendant's Ex. 25


80 000 000 Tons.
70 000 000 Tons.
60 000 000 Tons.
50 000 000 Tons.
40 000 000 Tons.
30 000 000 Tons.
20 000 000 Tons.
10 000 000 Tons.
Strike in 1st. Apr.1 - Oct.1.
Strike in 1st. Apr.1 - Aug.1.

Defendant's Exhibit 26



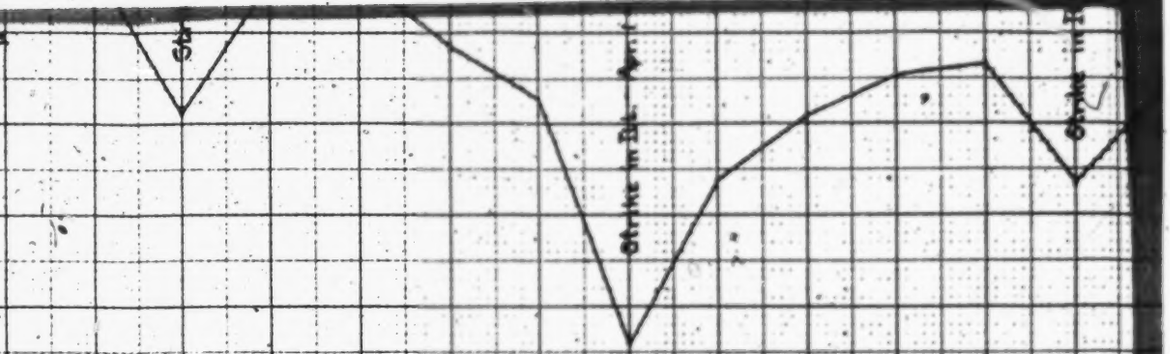
Illinois Production.
Percentage to Total
Production - Illinois
and West Kentucky Fields
(Shipping Mines)

Source of Information

Illinois tonnage - Dept. of Mines and
Minerals - State of Illinois

West Kentucky Tonnage - U.S. Bureau of Mines

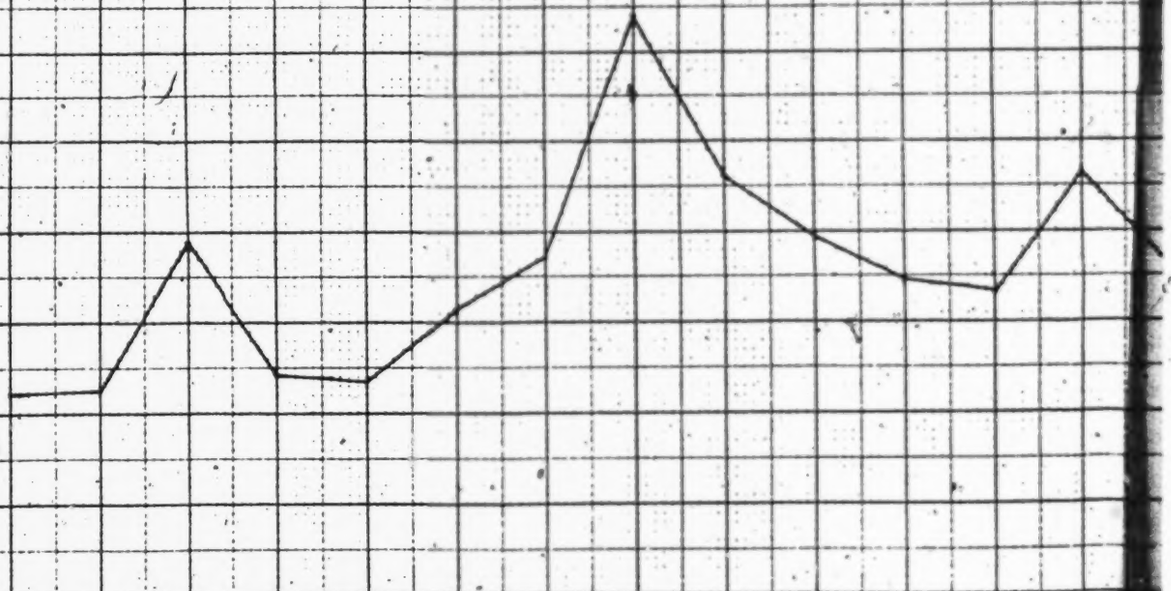
and West Kentucky Fields
(Shipping Mines)



Source of Information

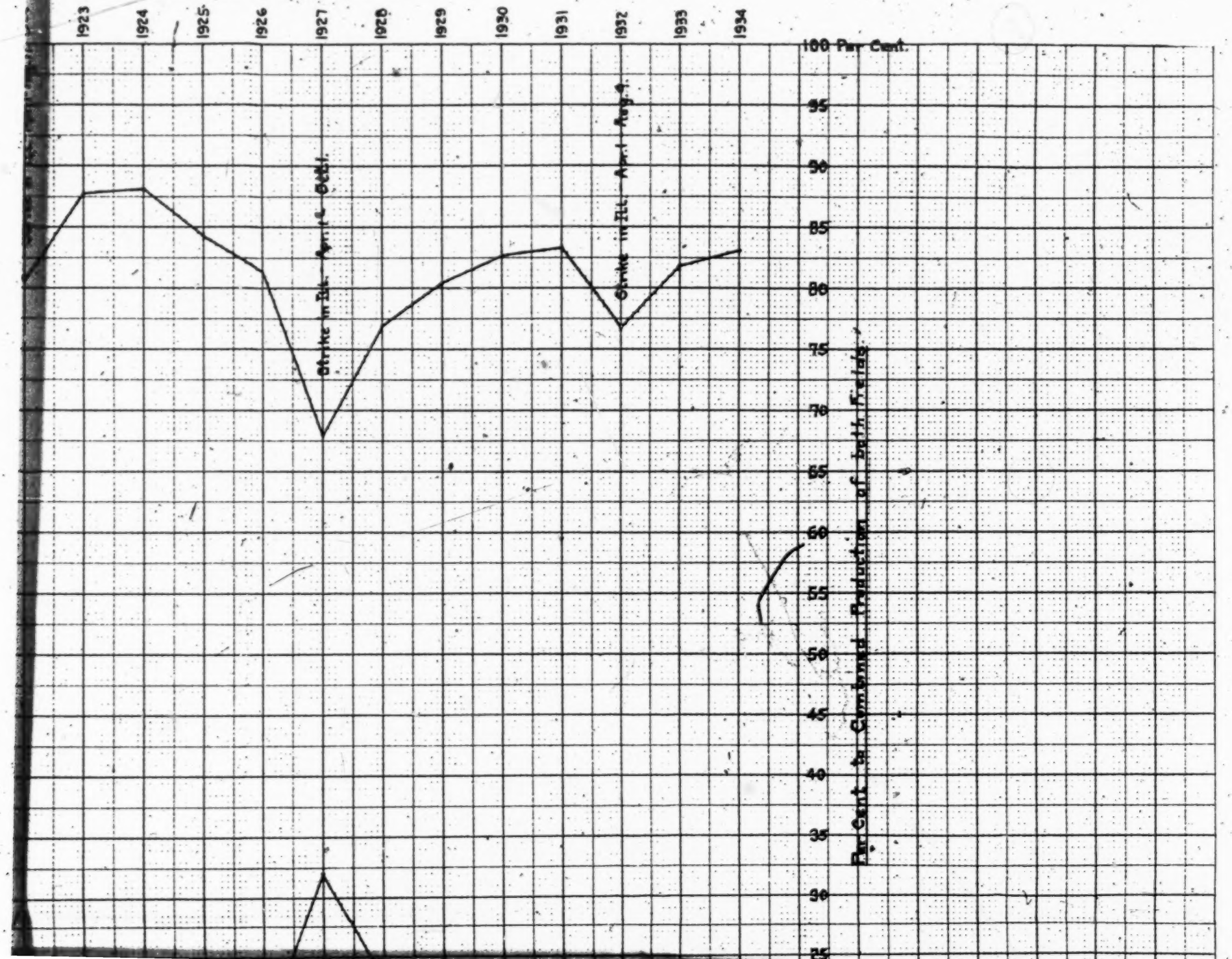
Illinois tonnage - Dept. of Mines and Minerals - State of Illinois.

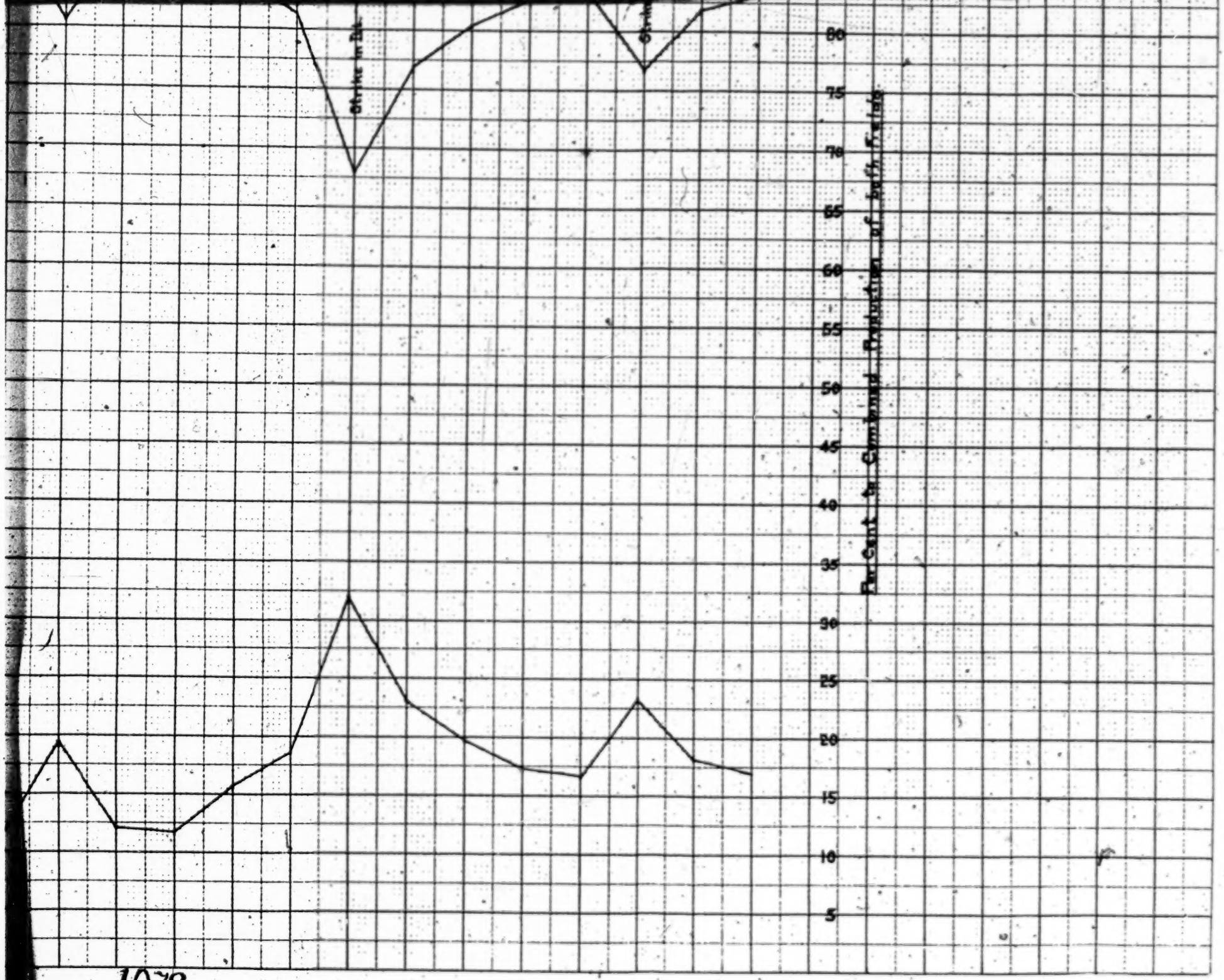
West Kentucky Tonnage - U.S. Bureau of Mines.



West Kentucky Production.
Per Centage to Total
Production - Illinois and
West Kentucky Fields.

Defendant's Exhibit 26



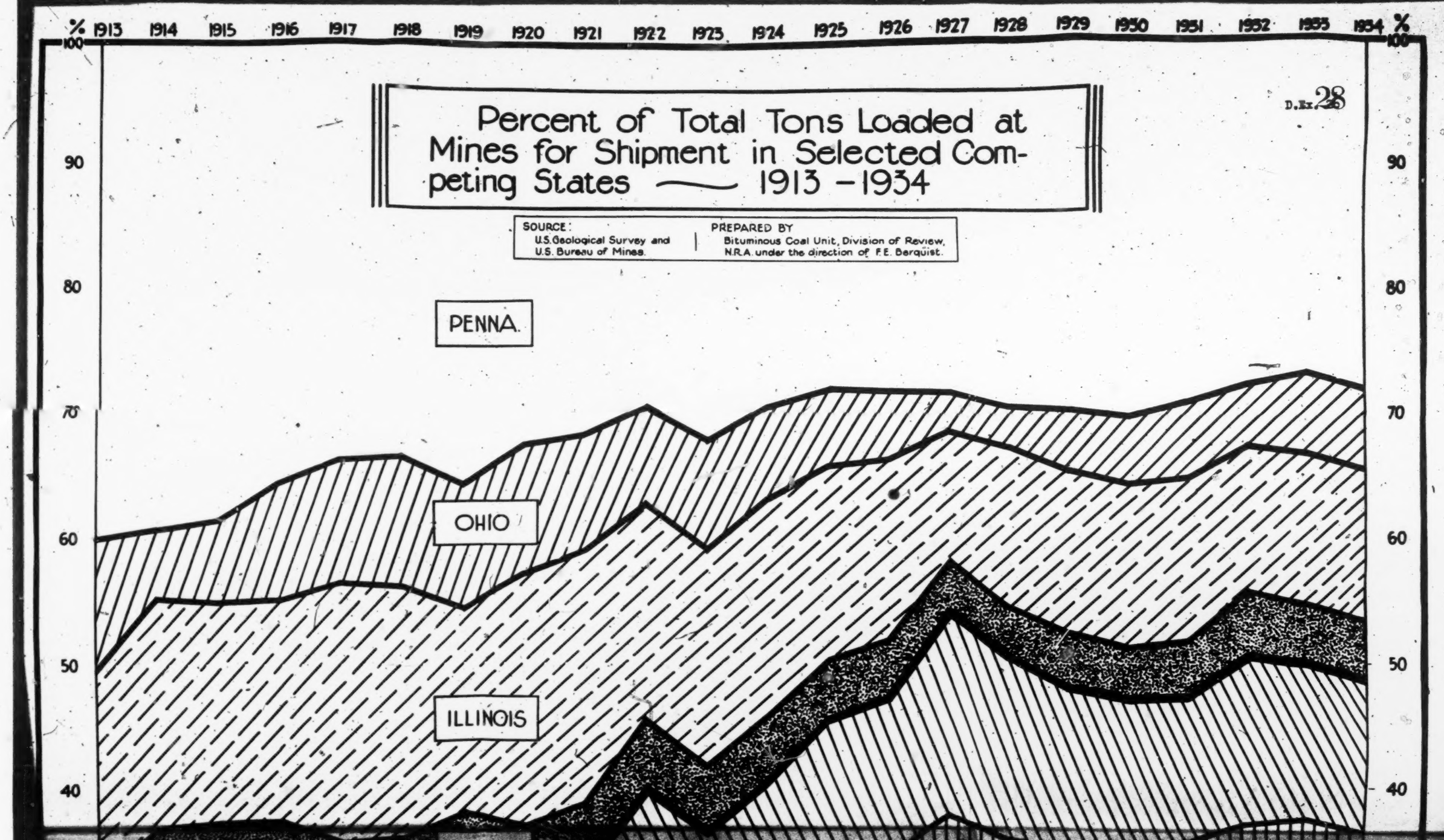

Strike in Bituminous Fields
Strike in Anthracite Fields
Per Cent. of Combined Production of both Fields
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5

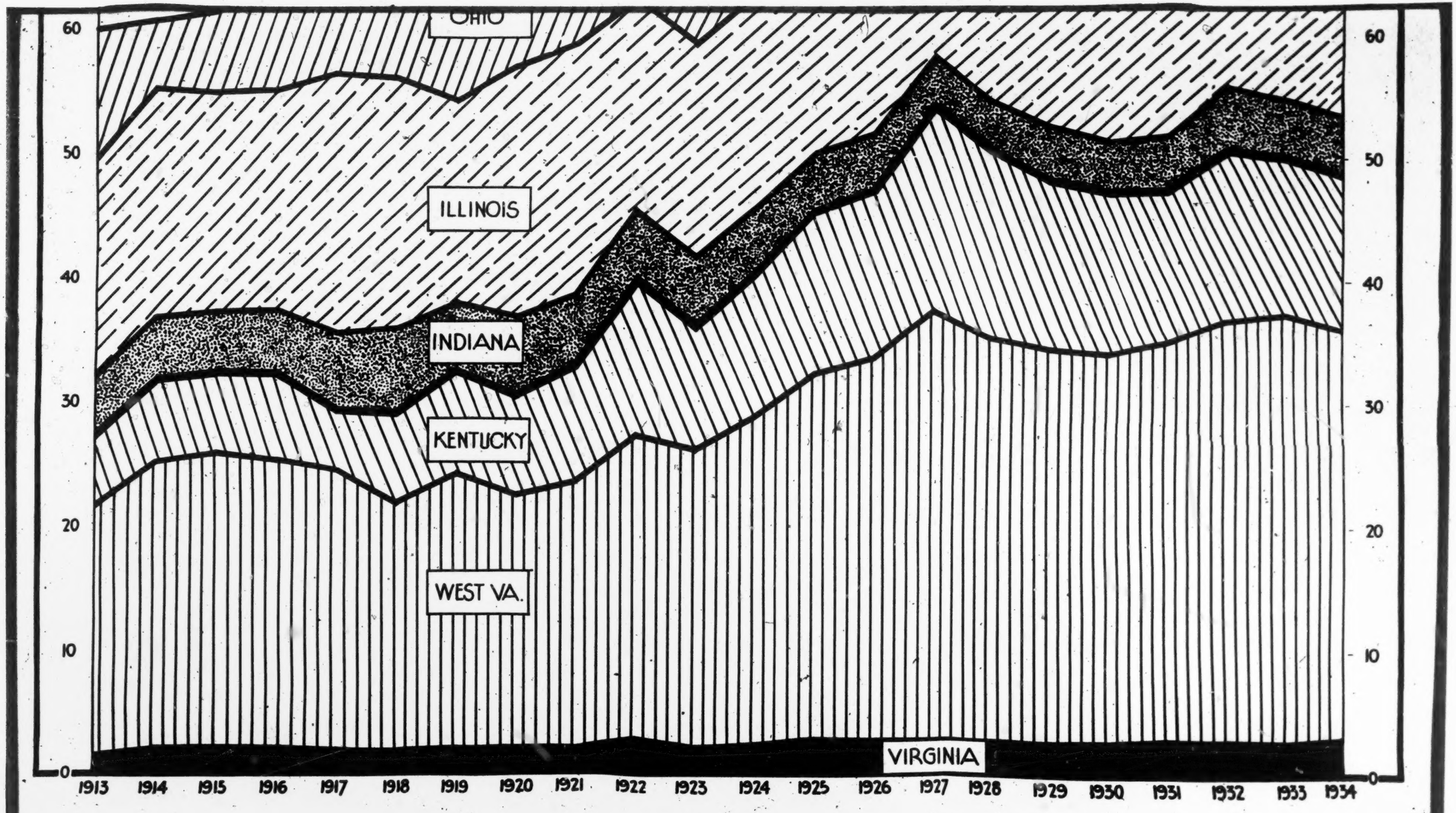
D.Ex. 28

Percent of Total Tons Loaded at Mines for Shipment in Selected Competing States — 1913 – 1934

SOURCE: U.S. Geological Survey and U.S. Bureau of Mines.

PREPARED BY Bituminous Coal Unit, Division of Review, N.R.A. under the direction of F.E. Berquist.




OHIO
ILLINOIS
INDIANA
KENTUCKY
WEST VA.
VIRGINIA
60
50
40
30
20
10
0
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934

D.Ex. 28a

BITUMINOUS COAL LOADED AT MINES FOR SHIPMENT FOR SELECTED STATES, AND PERCENT OF TOTAL TONNAGE OF THESE STATES LOADED IN EACH OF THE COMPONENT STATES. 1913 - 1934

	Pennsylvania		Ohio		Illinois		Indiana		Kentucky		West Virginia		Virginia		Total
	Tons Shipped	Percent of total of group.	Tons Shipped	Percent of total of group.	Tons Shipped	Percent of total of group.	Tons Shipped	Percent of total of group.	Tons Shipped	Percent of total of group.	Tons Shipped	Percent of total of group.	Tons Shipped	Percent of total of group.	Tons
1913	127,912,594	39.9	33,525,096	10.5	55,779,351	17.4	16,034,285	5.0	18,029,826	5.6	64,058,318	20.0	5,148,433	1.6	320,487,903
1914	114,876,895	39.2	16,397,457	5.6	53,583,390	18.3	15,497,998	5.3	18,896,135	6.5	67,024,189	22.9	6,436,133	2.2	292,714,197
1915	119,176,343	38.5	20,051,585	6.5	54,826,393	17.7	16,033,039	5.2	19,821,392	6.4	72,956,241	23.5	6,948,235	2.2	309,813,228
1916	123,181,649	35.6	31,995,913	9.2	61,486,342	17.8	18,839,568	5.4	23,472,421	6.8	79,760,681	23.0	7,464,797	2.2	346,201,371
1917	128,959,943	33.7	37,462,479	9.8	80,283,345	20.9	24,991,177	6.5	25,671,298	6.7	77,996,698	20.4	7,652,143	2.0	383,017,083
1918	137,469,982	33.4	42,888,616	10.4	83,268,864	20.2	28,961,651	7.1	29,350,941	7.1	81,579,916	19.8	8,143,000	2.0	411,662,964
1919	120,676,950	35.7	33,054,103	9.8	55,540,051	16.4	19,423,744	5.8	27,907,773	8.3	73,672,527	21.8	7,501,205	2.2	337,776,353
1920	134,382,663	32.6	41,757,891	10.2	82,510,029	20.0	27,367,568	6.7	33,334,161	8.1	83,199,005	20.2	9,219,622	2.2	411,770,339
1921	102,025,340	31.8	29,788,393	9.3	64,174,112	20.0	19,116,259	6.0	30,096,762	9.4	68,655,196	21.4	6,818,178	2.1	320,674,240
1922	93,493,508	29.7	24,125,947	7.7	53,604,937	17.0	17,960,212	5.7	40,086,740	12.7	75,895,796	24.1	9,597,715	3.1	314,764,855
1923	138,036,176	32.2	37,182,218	8.7	73,784,367	17.2	24,860,445	5.8	43,043,477	10.0	101,892,706	23.7	10,283,158	2.4	429,082,547
1924	110,240,821	29.6	27,404,952	7.4	63,689,920	17.1	20,338,416	5.5	43,683,182	11.7	97,169,314	26.1	9,756,162	2.6	372,282,766
1925	114,456,238	28.2	24,930,193	6.1	62,712,422	15.4	20,253,156	5.0	53,721,081	13.2	118,191,674	29.1	12,032,321	3.0	406,297,085
1926	128,338,782	28.3	24,871,074	5.5	64,611,575	14.3	22,020,268	4.9	61,291,208	13.5	138,359,940	30.5	13,381,511	3.0	452,674,361
1927	116,025,187	28.4	13,144,135	3.2	42,757,667	10.4	16,754,142	4.1	67,579,996	16.5	140,536,113	34.4	12,234,331	3.0	409,031,571
1928	117,785,042	29.6	12,786,442	3.2	51,513,409	12.9	15,488,382	3.9	60,454,706	15.2	128,671,064	32.3	11,371,792	2.9	398,070,837
1929	127,064,532	29.8	20,840,851	4.9	55,712,372	13.0	17,387,599	4.1	59,125,101	13.9	134,241,631	31.5	12,119,712	2.8	426,491,798
1930	113,885,163	30.3	20,132,937	5.4	48,922,279	13.0	15,235,765	4.0	50,011,859	13.3	117,480,773	31.2	10,414,384	2.8	376,083,160
1931	89,830,912	29.2	18,535,771	6.0	39,957,676	13.0	13,135,525	4.3	38,834,905	12.6	98,316,214	31.9	9,392,255	3.0	308,003,258
1932	68,022,893	27.7	11,972,845	4.9	28,793,563	11.7	12,186,044	5.0	34,229,444	13.9	82,952,472	33.8	7,461,381	3.0	245,618,842
1933	71,326,491	26.7	17,248,755	6.5	31,981,599	12.0	12,411,984	4.6	35,114,331	13.1	91,328,937	34.2	7,892,547	2.9	267,304,644
1934	80,696,259	28.0	* 18,362,000	6.4	*34,974,000	12.1	*13,368,000	4.6	37,283,960	12.9	94,775,558	32.9	9,058,264	3.1	288,518,041

* Estimated on basis of percent that total shipments were of total production in 1933

Source: U. S. Geological Survey and U. S. Bureau of Mines.

Prepared by Bituminous Coal Unit
Division of Review, N. R. A.
under direction of F. E. Berquist.

SHIPMENTS OF BITUMINOUS COAL TO TIDEWATER, 1920 to 1934 INCLUSIVE

(Tonnage figures represent thousands of net tons)

Code authority districts	1920 Net Tons	1920 % of Total	1921 Net Tons	1921 % of Total	1922 Net Tons	1922 % of Total	1923 Net Tons	1923 % of Total	1924 Net Tons	1924 % of Total	1925 Net Tons	1925 % of Total	1926 Net Tons	1926 % of Total	1927 Net Tons	1927 % of Total	1928 Net Tons	1928 % of Total	1929 Net Tons	1929 % of Total	1930 Net Tons	1930 % of Total	1931 Net Tons	1931 % of Total	1932 Net Tons	1932 % of Total	1933 Net Tons	1933 % of Total
DIVISION NO. 1																												
Eastern Sub Division:																												
Central Pennsylvania 1/	13,037	24.24	9,680	25.94	5,895	20.71	10,446	27.84	8,061	24.27	7,613	20.51	9,847	17.10	6,678	17.65	6,751	19.45	7,470	19.63	8,054	21.66	7,286	21.76	6,160	23.00	5,727	21.11
Somerset 2/	5,095	9.47	3,328	8.91	2,378	8.35	2,735	7.29	2,330	7.01	3,411	9.19	4,220	7.33	4,305	11.38	4,718	13.58	4,532	11.91	3,865	10.40	3,399	10.15	2,325	8.69	2,013	7.42
Maryland - Upper Potomac 3/																												
Total Eastern Sub Division	18,132	33.71	13,008	34.85	8,273	29.06	13,181	35.13	10,391	31.28	11,024	29.70	14,067	24.43	10,983	29.03	11,469	33.03	12,002	31.54	11,919	32.06	10,685	31.91	8,485	31.69	7,740	28.53
Western Pennsylvania Sub Division 4/																												
Ohio Sub Division:																												
Ohio - all																												
Panhandle of West Virginia 5/	10,715	19.92	6,681	17.90	3,241	11.38	6,580	17.54	4,553	13.71	4,745	12.78	12,069	20.97	4,744	12.54	3,093	8.91	3,513	9.23	3,584	9.64	2,526	7.54	1,741	6.50	1,956	7.22
Michigan - all																												
Total Ohio Sub Division																												
Northern West Virginia 6/																												
Southern - Low Volatile 7/	17,597	32.72	13,806	36.99	14,401	50.58	13,618	36.29	14,966	45.05	16,601	44.72	20,826	36.17	16,942	44.77	15,593	44.92	17,103	44.95	16,403	44.12	14,678	43.83	11,670	43.58	12,892	47.53
Southern - High Volatile 8/	7,340	13.65	3,828	10.26	2,558	8.98	4,142	11.04	3,307	9.96	4,754	12.80	10,612	18.43	5,170	13.66	4,563	13.14	5,432	14.28	5,273	14.18	5,397	16.72	4,882	18.23	4,536	16.72
Western Kentucky 9/	--		--		--		--		--		--		--		--		--		--		--		--		--		--	
GRAND TOTAL	53,784	100.00	37,323	100.00	28,473	100.00	37,521	100.00	33,217	100.00	37,124	100.00	57,574	100.00	37,839	100.00	34,718	100.00	38,888	100.00	37,179	100.00	33,486	100.00	26,778	100.00	27,186	100.00

SOURCE: United States Bureau of Mines.

1/ Includes U. S. Coal Commission Fields No. 6 Blossburg; 7 Broad Top; 9abc Central Pennsylvania.
2/ Includes U. S. Coal Commission Field No. 8 Somerset.
3/ Includes U. S. Coal Commission Fields No. 10, Maryland-Potomac (or Maryland plus Grant, Mineral and Tucker Counties, West Virginia).
4/ Includes U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4ab Freeport; 5 Butler-Mercer.
5/ Includes Brooke, Hancock, Marshall and Ohio Counties in West Virginia.
6/ Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties, and Nicholas County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24abc, except Clay and Kanawha Counties).
7/ Includes U. S. Coal Commission Fields No. 17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 32 North Carolina.
8/ Includes mines in Clay and Kanawha Counties in U. S. Coal Commission Fields No. 24abc; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Clinch Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian 40 Jellico; 43 Pentress; and northern part of No. 42, namely mines in Anderson, Morgan, and Roane Counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee.).
9/ Includes U. S. Coal Commission Field No. 41 Western Kentucky.

Prepared by Bituminous Coal Division of Revenue Under Direction of

D.Ex. 29

SHIPMENTS OF BITUMINOUS COAL TO TIDEWATER, 1920 to 1934 INCLUSIVE

(Tonnage figures represent thousands of net tons)

	1920		1921		1922		1923		1924		1925		1926		1927		1928		1929		1930		1931		1932		1933		1934	
	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total
	13,037	24.24	9,680	25.94	5,895	20.71	10,446	27.84	8,061	24.27	7,613	20.51	9,847	17.10	6,678	17.65	6,751	19.45	7,470	19.63	8,054	21.66	7,286	21.76	6,160	23.00	5,727	21.11	6,289	21.88
	5,095	9.47	3,328	8.91	2,378	8.35	2,735	7.29	2,330	7.01	3,411	9.19	4,220	7.33	4,305	11.38	4,718	13.58	4,532	11.91	3,865	10.40	3,399	10.15	2,325	8.69	2,013	7.42	2,144	7.46
	18,132	33.71	13,008	34.85	8,273	29.06	13,181	35.13	10,391	31.28	11,024	29.70	14,067	24.43	10,983	29.03	11,469	33.03	12,002	31.54	11,919	32.06	10,685	31.91	8,485	31.69	7,740	28.53	8,433	29.34
ion 4/																														
5/	10,715	19.92	6,681	17.90	3,241	11.38	6,580	17.54	4,553	13.71	4,745	12.78	12,069	20.97	4,744	12.54	3,093	8.91	3,513	9.23	3,584	9.64	2,526	7.54	1,741	6.50	1,956	7.22	2,214	7.70
	17,597	32.72	13,806	36.99	14,401	50.58	13,618	36.29	14,966	45.05	16,601	44.72	20,826	36.17	16,942	44.77	15,583	44.92	17,103	44.95	16,403	44.12	14,678	43.83	11,670	43.58	12,892	47.53	13,745	47.82
	7,340	13.65	3,828	10.26	2,558	8.98	4,142	11.04	3,307	9.96	4,754	12.80	10,612	18.43	5,170	13.66	4,563	13.14	5,432	14.28	5,273	14.18	5,997	16.72	4,882	18.23	4,536	16.72	4,351	15.14
	--		--		--		--		--		--		--		--		--		--		--		--		--		--		--	
	53,784	100.00	37,323	100.00	28,473	100.00	37,521	100.00	33,217	100.00	37,124	100.00	57,574	100.00	37,839	100.00	34,718	100.00	38,888	100.00	37,179	100.00	33,486	100.00	26,778	100.00	27,126	100.00	28,743	100.00

of Mines.

ssion Fields No. 6 Kingsburg; 7 Broad Top; 9abc Central Pennsylvania.
ssion Field No. 8 Somerset.
ssion Fields No. 10. Maryland-Potomac (or Maryland plus Grant, Mineral and Tucker Counties, West Virginia).
ssion Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4ab Freeport; 5 Butler-Mercer.
, Marshall and Ohio Counties in West Virginia.
ton, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties, and Nicholas County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont Clay and Kanawha Counties).
ssion Fields No. 17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 92 North Carolina.
d Kanawha Counties in U. S. Coal Commission Fields No. 24abc; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Clinch Valley; ky; 37 Hazard; 38 Harlan; 39 Southern Appalachian 40 Jellico; 43 Pentress; and northern part of No. 42, namely mines in Anderson, Morgan, and Roane Counties and Cumberland County except on the Nashville, ais Railroad. [5]This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee.).
ssion Field No. 41 Western Kentucky.

Prepared by Bituminous Coal Unit
Division of Review, N.R.A.
Under Direction of F. E. Berquist

SHIPMENTS OF BITUMINOUS COAL TO LAKE ERIE, 1920 to 1934 INCLUSIVE. (Cargo coal only) a-1

(Tonnage figures represent thousands of net tons)

Code authority districts.	1920 Net Tons	1920 % of Total	1921 Net Tons	1921 % of Total	1922 Net Tons	1922 % of Total	1923 Net Tons	1923 % of Total	1924 Net Tons	1924 % of Total	1925 Net Tons	1925 % of Total	1926 Net Tons	1926 % of Total	1927 Net Tons	1927 % of Total	1928 Net Tons	1928 % of Total	1929 Net Tons	1929 % of Total	1930 Net Tons	1930 % of Total	1931 Net Tons	1931 % of Total	1932 Net Tons	1932 % of Total	1933 Net Tons	1933 % of Total	1934 Net Tons	1934 % of Tot
DIVISION NO. 1																														
Eastern Sub Division:																														
Central Pennsylvania 1/	22	0.10	30	0.13	81	0.44	31	0.11	2	0.01	1	--	2	0.01	11	0.03	87	0.26	171	0.45	441	1.20	610	2.01	705	2.87	1,208	3.85	1,192	3.
Somerset 2/	--		--		--		--		--		--		--		--		--		--		--		--		3	0.01	3	0.01	--	
Maryland - Upper Potomac 3/	22	0.10	5	0.02	1	--	1	--	5	0.02	4	0.02	3	0.01	--	--	3	0.01	3	0.01	3	0.01	29	0.09	10	0.04	18	0.06	14	0.
Total Eastern Division	44	0.20	35	0.15	82	0.44	32	0.11	7	0.03	5	0.02	5	0.02	11	0.03	90	0.27	174	0.46	444	1.21	639	2.10	718	2.92	1,229	3.92	1,206	3.
Western Pennsylvania Sub Division #4/	7,248	32.37	6,631	29.65	5,210	28.04	9,589	31.93	4,280	18.63	2,479	9.42	3,930	13.96	3,597	10.95	6,623	19.83	7,874	20.76	8,573	23.27	7,272	23.91	6,857	27.92	7,425	23.68	9,396	26.
Ohio Sub Division:																														
Ohio - all	7,607	33.97	5,538	24.76	3,386	18.22	5,953	19.95	3,999	17.41	1,450	5.51	1,412	5.02	345	1.05	1,052	3.15	3,199	8.43	3,363	9.13	2,978	9.75	1,411	5.75	2,097	6.69	2,141	6.
Panhandle of West Virginia ## 5/	(a)		(a)		(a)		(a)		(a)		761	2.89	327	1.16	728	2.22	895	2.68	706	1.86	447	1.21	125	0.41	283	1.15	278	0.89	350	1.
Michigan - all	--		--		--		--		--		--		--		--		--		--		--		--		--		--		--	
Total Ohio Sub Division	7,607	33.97	5,538	24.76	3,386	18.22	5,953	19.95	3,999	17.41	2,211	8.40	1,739	6.18	1,073	3.27	1,947	5.83	3,905	10.29	3,810	10.34	3,103	10.20	1,694	6.90	2,375	7.58	2,491	7.
Northern West Virginia 6/	1,284		1,015	4.54	1,370	7.38	3,168	10.62	1,402	6.10	1,623	6.16	2,142	7.60	3,877	11.80	2,705	8.10	1,379	3.64	1,035	2.81	866	2.85	906	3.69	941	3.00	617	2.
Southern - Low Volatile 7/	1,668	7.45	2,639	11.80	1,937	10.43	2,894	9.70	2,984	12.99	3,692	14.02	4,117	14.62	5,410	16.47	6,209	18.59	7,695	20.18	7,181	19.49	5,727	18.83	4,201	17.10	6,542	20.87	6,863	19.
Southern - High Volatile 8/	4,540	20.28	6,506	29.10	6,593	35.49	8,263	27.69	10,303	44.84	16,321	61.98	16,226	57.62	18,884	57.48	15,828	47.38	16,946	44.67	15,797	42.88	12,808	42.11	10,187	41.47	12,639	40.95	14,097	40.
Western Kentucky 9/	--		--		--		--		--		--		--		--		--		--		--		--		--		--		--	
TOTAL CARGO COAL	22,391	100.00	22,364	100.00	18,578	100.00	29,840	100.00	22,975	100.00	26,331	100.00	28,159	100.00	32,852	100.00	33,402	100.00	37,933	100.00	36,840	100.00	30,415	100.00	24,563	100.00	31,351	100.00	34,670	100.
TOTAL VESSEL FUEL									1,348		1,532		1,581		1,451		1,364		1,451		1,321		972		610		982		1,102	

SOURCE: United States Bureau of Mines.

a-1 Courtesy of Ohio Bureau of Coal Statistics for years 1920 to 1923 inclusive. Courtesy of Ore and Coal Exchange for years 1924 to 1934 inclusive.

\# Includes Lake coal originating on P.R.R. and P. & W. Va. in Panhandle of West Virginia. ## Includes only Lake coal originating on B. & O. in Panhandle of West Virginia. (a) Moundsville District on B. & O. included in Northern West Virginia.

1/ Includes U. S. Coal Commission Fields No. 6 Blossburg; 7 Broad Top; 9abc Central Pennsylvania.

2/ Includes U. S. Coal Commission Field No. 8 Somerset.

3/ Includes U. S. Coal Commission Fields No. 10, Maryland-Potomac (or Maryland plus Grant, Mineral and Tucker Counties, West Virginia).

4/ Includes U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4ab Freeport; 5 Butler-Mercer.

5/ Includes Brooke, Hancock, Marshall and Ohio Counties in West Virginia.

6/ Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties, and Nichols County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24abc, except Clay and Kanawha Counties).

7/ Includes U. S. Coal Commission Fields No. 17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 32 North Carolina.

8/ Includes mines in Clay and Kanawha Counties in U. S. Coal Commission Fields No. 24abc; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Clinch Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian 40 Jellico; 43 Pentress; and northern part of No. 42, namely mines in Anderson, Morgan, and Scott Counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. (This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee.).

9/ Includes U. S. Coal Commission Field No. 41 Western Kentucky.

Prepared by Bituminous Coal Un
Division of Review, N.R.A.
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SHIPMENTS OF BITUMINOUS COAL TO LAKE ERIE, 1920 to 1934 INCLUSIVE. (Cargo coal only) n-1

(Tonnage figures represent thousands of net tons)

Authority districts.	1920 Net Tons	1920 % of Total	1921 Net Tons	1921 % of Total	1922 Net Tons	1922 % of Total	1923 Net Tons	1923 % of Total	1924 Net Tons	1924 % of Total	1925 Net Tons	1925 % of Total	1926 Net Tons	1926 % of Total	1927 Net Tons	1927 % of Total	1928 Net Tons	1928 % of Total	1929 Net Tons	1929 % of Total	1930 Net Tons	1930 % of Total	1931 Net Tons	1931 % of Total	1932 Net Tons	1932 % of Total	1933 Net Tons	1933 % of Total	1934 Net Tons	1934 % of Total
DIVISION NO. 1																														
Sub Division:																														
al Pennsylvania 1/	{ 22	0.10	{ 30	0.13	{ 81	0.44	{ 31	0.11	{ 2	0.01	{ 1	--	{ 2	0.01	{ 11	0.03	87	0.26	171	0.45	441	1.20	610	2.01	705	2.87	1,206	3.85	1,192	3.42
et 2/																	--		--		--		--		3	0.01	3	0.01	--	--
nd - Upper Potomac 3/	22	0.10	5	0.02	1	--	1	--	5	0.02	4	0.02	3	0.01	--	--	3	0.01	3	0.01	3	0.01	29	0.09	10	0.04	18	0.06	14	0.04
al Eastern Division	44	0.20	35	0.15	82	0.44	32	0.11	7	0.03	5	0.02	5	0.02	11	0.03	90	0.27	174	0.46	444	1.21	639	2.10	718	2.92	1,229	3.92	1,206	3.46
Pennsylvania Sub Division 4/	7,248	32.37	6,631	29.65	5,210	28.04	9,520	31.93	4,280	18.63	2,479	9.42	3,930	13.96	3,597	10.95	6,623	19.83	7,674	20.76	8,573	23.27	7,272	23.91	6,857	27.92	7,425	23.68	9,396	26.95
Division:																														
all	7,607	33.97	5,538	24.76	3,386	18.22	5,953	19.95	3,999	17.41	1,450	5.51	1,412	5.02	345	1.05	1,052	3.15	3,199	8.43	3,363	9.13	2,978	9.79	1,411	5.75	2,097	6.69	2,141	6.14
dle of West Virginia 4/ 5/	(a)		(a)		(a)		(a)		(a)		761	2.89	327	1.16	728	2.22	895	2.68	706	1.86	447	1.21	125	0.41	283	1.15	278	0.89	350	1.00
an - all	--		--		--		--		--		--		--		--		--		--		--		--		--		--		--	
l Ohio Sub Division	7,607	33.97	5,538	24.76	3,386	18.22	5,953	19.95	3,999	17.41	2,211	8.40	1,739	6.18	1,073	3.27	1,947	5.83	3,905	10.29	3,810	10.34	3,103	10.20	1,694	6.90	2,375	7.58	2,491	7.14
West Virginia 6/	1,284		1,015	4.54	1,370	7.38	3,168	10.62	1,402	6.10	1,623	6.16	2,142	7.60	3,677	11.80	2,705	8.10	1,379	3.64	1,035	2.81	866	2.85	906	3.69	941	3.00	817	2.34
- Low Volatile 7/	1,668	7.45	2,639	11.80	1,937	10.43	2,894	9.70	2,984	12.99	3,692	14.02	4,117	14.62	5,410	16.47	6,209	18.59	7,655	20.18	7,181	19.49	5,727	18.83	4,201	17.10	6,542	20.87	6,863	19.68
- High Volatile 8/	4,540	20.28	6,506	29.10	6,593	35.49	8,263	27.69	10,303	44.84	16,321	61.98	16,226	57.62	18,884	57.48	15,828	47.38	16,946	44.67	15,797	42.88	12,808	42.11	10,187	41.47	12,839	40.95	14,097	40.43
Kentucky 9/	--		--		--		--		--		--		--		--		--		--		--		--		--		--		--	
CARGO COAL	22,391	100.00	22,364	100.00	18,578	100.00	29,840	100.00	22,975	100.00	26,331	100.00	28,159	100.00	32,852	100.00	33,402	100.00	37,933	100.00	36,840	100.00	30,415	100.00	24,563	100.00	31,351	100.00	34,870	100.00
VESSEL FUEL									1,348		1,532		1,581		1,451		1,364		1,451		1,321		972		610		982		1,102	

United States Bureau of Mines.

Courtesy of Ohio Bureau of Coal Statistics for years 1920 to 1923 inclusive. Courtesy of Ore and Coal Exchange for years 1924 to 1934 inclusive.
Includes Lake coal originating on P.R.R. and P. & W. Va. in Panhandle of West Virginia. 4/ Includes only Lake coal originating on B. & O. in Panhandle of West Virginia. (a) Moundsville District on B. & O. included in Northern West Virginia.
Includes U. S. Coal Commission Fields No. 6 Blossburg; 7 Broad Top; 9abc Central Pennsylvania.
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Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties, and Nichols County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24abc, except Clay and Kanawha Counties).
Includes U. S. Coal Commission Fields No. 17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 92 North Carolina.
Includes mines in Clay and Kanawha Counties in U. S. Coal Commission Fields No. 24abc; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Clinch Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian 40 Jellico; 43 Pentress; and northern part of No. 42, namely mines in Anderson, Morgan, and Roane Counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. (This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee.).
Includes U. S. Coal Commission Field No. 41 Western Kentucky.

Prepared by Bituminous Coal Unit
Division of Review, N.R.A.
Under Direction of F. E. Perquist

SHIPMENTS OF WESTBOUND COAL FROM THE APPLACHIANS AND FROM ILLINOIS, INDIANA, AND WESTERN KENTUCKY, s-1

(Tonnage figures represent thousands of net tons)

Code authority districts	1920		1921		1922		1923		1924		1925		1926		1927		1928		1929		1930		1931		1932		1933		1934	
	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total	Net Tons	% of Total
DIVISION NO. 1																														
Eastern Sub Division:																														
Central Pennsylvania 1/	175	0.24	100	0.17	268	0.39	198	0.13	152	0.11	189	0.12	191	0.11	196	0.12	256	0.16	178	0.11	172	0.13	133	0.13	107	0.12	114	0.13	1,379	1.37
Somerset 2/	310	0.42	97	0.16	134	0.20	170	0.11	143	0.10	149	0.10	195	0.12	152	0.10	184	0.12	239	0.15	360	0.26	279	0.26	135	0.15	163	0.18	198	0.20
Maryland-Upper Potomac 3/	90	0.12	39	0.07	36	0.05	64	0.04	42	0.03	40	0.03	52	0.03	45	0.03	42	0.03	62	0.03	53	0.04	51	0.05	37	0.04	85	0.09	199	0.20
Total Eastern Sub Division	575	0.78	236	0.40	438	0.64	432	0.28	337	0.24	378	0.25	438	0.26	393	0.25	482	0.31	479	0.29	585	0.43	463	0.44	279	0.31	362	0.40	1,776	1.77
Western Pennsylvania Sub Division # 4/	11,629	15.83	9,430	16.10	10,022	14.57	15,474	9.87	13,437	9.36	13,781	9.04	20,077	11.94	19,224	12.03	20,343	13.21	21,468	13.03	16,775	12.25	11,557	10.87	7,593	8.53	6,363	7.02	9,994	9.92
Ohio Sub Division:																														
Ohio - all	29,058	39.56	19,232	32.82	16,419	23.86	22,970	14.66	17,399	12.12	16,172	10.60	16,100	9.58	8,965	5.61	8,205	5.33	12,912	7.84	12,092	8.82	10,771	10.13	7,823	8.79	10,965	12.10	11,321	11.88
Panhandle of West Virginia ## 5/	--		--		--		--		--		--		--		--		--		--		--		357	0.34	162	0.18	136	0.15	158	0.16
Michigan - all	--		--		--		--		--		--		--		--		--		--		--		--		--		--		--	
Total Ohio Sub Division	29,058	39.56	19,232	32.82	16,419	23.86	22,970	14.66	17,399	12.12	16,172	10.60	16,100	9.58	8,965	5.61	8,205	5.33	12,912	7.84	12,092	8.82	11,128	10.47	7,985	8.97	11,101	12.25	11,479	11.44
Northern West Virginia 6/	1,965	2.68	1,127	1.92	1,900	2.62	2,903	1.85	1,875	1.31	2,487	1.63	4,255	2.53	7,027	4.40	6,347	4.12	5,731	3.48	4,779	3.49	3,242	3.05	2,945	3.31	3,800	3.53	3,298	3.25
Southern - Low Volatile 7/	7,565	10.30	7,331	12.51	10,828	15.72	13,535	8.64	14,460	10.07	18,183	11.89	20,489	12.19	20,707	12.96	21,330	13.85	23,690	14.38	19,193	14.01	15,457	14.54	13,743	15.45	14,480	16.00	14,916	14.87
Southern - High Volatile 8/	22,657	30.85	21,239	36.25	29,303	42.59	34,867	22.25	37,985	26.[illegible]	[illegible]	29.61	47,865	28.48	53,436	33.44	49,375	32.06	48,877	29.66	40,228	29.37	30,210	28.43	25,946	29.17	26,952	29.32	28,031	27.95
Western Kentucky 9/	No	data	No	data	No	data	3,569	2.28	2,528	1..	...	2.79	6,[illegible]82	3.86	12,282	7.69	8,110	5.26	6,175	3.74	3,791	2.76	2,731	2.57	4,202	4.73	2,887	2.46	2,208	2.20
Illinois	"	"	"	"	"	"	48,401	30.89	42,851	29.8[illegible]	39,30[illegible]	25.77	39,458	23.47	26,863	16.81	30,861	20.03	34,863	21.16	30,533	22.29	23,658	22.26	17,782	19.99	18,190	20.06	20,209	20.15
Indiana	"	"	"	"	"	"	14,549	9.28	12,680	8.83	12,846	8.42	12,927	7.69	10,895	6.81	8,979	5.83	10,589	6.42	9,014	6.58	7,831	7.37	6,490	9.54	8,096	8.94	8,877	8.85
GRAND TOTAL	73,449	100.00	58,595	100.00	68,800	100.00	156,700	100.00	143,552	100.00	152,555	100.00	168,091	100.00	159,792	100.00	154,032	100.00	164,784	100.00	136,990	100.00	106,277	100.00	88,965	100.00	90,593	100.00	100,308	100.00

SOURCE: United States Bureau of Mines.

(s-1) Data for Ohio and Crescent by courtesy of Ohio Bureau of Coal Statistics. Data for Illinois, Indiana, and Western Kentucky by courtesy of Illinois Freight Association. (#) Includes coal originating on P.R.R. and P. & W. Va. in Panhandle of West Virginia. (##) Includes only coal originating on B. & O. in Panhandle of West Virginia.

1/ Includes U. S. Coal Commission Fields No. 6 Blossburg; 7 Broad Top; 9abc Central Pennsylvania.

2/ Includes U. S. Coal Commission Field No. 8 Somerset.

3/ Includes U. S. Coal Commission Fields No. 10, Maryland-Potomac (or Maryland plus Grant, Mineral and Tucker Counties, West Virginia).

4/ Includes U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4ab Freeport; 5 Butler-Mercer.

5/ Includes Brooke, Hancock, Marshall and Ohio Counties in West Virginia.

6/ Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties, and Nichols County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24abc, except Clay and Kanawha Counties).

7/ Includes U. S. Coal Commission Fields No. 17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 92 North Carolina.

8/ Includes mines in Clay and Kanawha Counties in U. S. Coal Commission Fields No. 24abc; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Clinch Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian 40 Jellico; 43 Pentress; and northern part of No. 42, namely mines in Anderson, Morgan, and Roane Counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. (This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee.).

9/ Includes U. S. Coal Commission Field No. 41 Western Kentucky.

Prepared by Bituminous Coal Unit
Division of Review, N.R.A.
Under Direction of F. E. Berquist

SHIPMENTS OF WESTBOUND COAL FROM THE APPALACHIANS AND FROM ILLINOIS, INDIANA, AND WESTERN KENTUCKY. a-1

(Tonnage figures represent thousands of net tons)

...rity districts	1920 Net Tons	1920 % of Total	1921 Net Tons	1921 % of Total	1922 Net Tons	1922 % of Total	1923 Net Tons	1923 % of Total	1924 Net Tons	1924 % of Total	1925 Net Tons	1925 % of Total	1926 Net Tons	1926 % of Total	1927 Net Tons	1927 % of Total	1928 Net Tons	1928 % of Total	1929 Net Tons	1929 % of Total	1930 Net Tons	1930 % of Total	1931 Net Tons	1931 % of Total	1932 Net Tons	1932 % of Total	1933 Net Tons	1933 % of Total	1934 Net Tons	1934 % of Total
...ISION NO. 1																														
...Division:																														
...nsylvania 1/	175	0.24	100	0.17	268	0.39	198	0.13	152	0.11	189	0.12	191	0.11	196	0.12	256	0.16	178	0.11	172	0.13	133	0.13	107	0.12	114	0.13	1,579	1.37
2/	310	0.42	97	0.16	134	0.20	170	0.11	143	0.10	149	0.10	195	0.12	152	0.10	184	0.12	239	0.15	360	0.26	279	0.26	135	0.15	163	0.18	198	0.20
Upper Potomac 3/	90	0.12	39	0.07	36	0.05	64	0.04	42	0.03	40	0.03	52	0.03	45	0.03	42	0.03	82	0.03	53	0.04	51	0.05	37	0.04	85	0.09	199	0.20
...stern Sub Division	575	0.78	236	0.40	438	0.64	432	0.28	337	0.24	378	0.25	438	0.26	393	0.25	482	0.31	479	0.29	585	0.43	463	0.44	279	0.31	362	0.40	1,776	1.77
...nsylvania Sub Division 4/	11,629	15.83	9,430	16.10	10,022	14.57	15,474	9.87	13,437	9.36	13,781	9.04	20,077	11.94	19,224	12.03	20,343	13.21	21,468	13.03	16,775	12.25	11,557	10.87	7,593	8.53	6,363	7.02	9,554	9.52
...visions:																														
...l	29,058	39.56	19,232	32.82	16,419	23.86	22,970	14.66	17,399	12.12	16,172	10.60	16,100	9.58	8,965	5.61	8,205	5.33	12,912	7.84	12,092	8.82	10,771	10.13	7,823	8.79	10,962	12.10	11,321	11.28
...of West Virginia ## 5/	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	357	0.34	162	0.18	136	0.15	158	0.16
... all	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
...io Sub Division	29,058	39.56	19,232	32.82	16,419	23.86	22,970	14.66	17,399	12.12	16,172	10.60	16,100	9.58	8,965	5.61	8,205	5.33	12,912	7.84	12,092	8.82	11,128	10.47	7,985	8.97	11,101	12.25	11,479	11.44
...t Virginia 6/	1,965	2.68	1,127	1.92	1,300	2.62	2,903	1.85	1,875	1.31	2,487	1.63	4,255	2.53	7,027	4.40	6,347	4.12	5,731	3.48	4,779	3.49	3,242	3.05	2,945	3.31	3,200	3.53	3,298	3.25
...Low Volatile 7/	7,565	10.30	7,331	12.51	10,816	15.72	13,535	8.64	14,460	10.07	18,145	11.89	20,489	12.19	20,707	12.96	21,330	13.85	23,690	14.38	19,193	14.01	15,457	14.54	13,743	15.45	14,490	16.00	14,916	14.67
...High Volatile 8/	22,657	30.85	21,239	36.25	29,303	42.59	34,867	22.25	37,985	26.46	45,179	29.61	47,865	28.48	53,436	33.44	49,375	32.06	48,877	29.66	40,228	29.37	30,210	28.43	25,946	29.17	26,562	29.32	28,031	27.95
...tucky 9/		No data		No data		No data	3,569	2.28	2,528	1.76	4,260	2.79	6,482	3.86	12,282	7.69	8,110	5.26	6,175	3.74	3,791	2.76	2,731	2.57	4,202	4.73	2,287	2.46	2,208	2.20
		"		"		"	48,401	30.89	42,851	29.85	39,307	25.77	39,458	23.47	26,863	16.81	30,861	20.03	34,863	21.16	30,533	22.29	23,658	22.26	17,782	19.99	18,190	20.08	20,209	20.15
		"		"		"	14,549	9.28	12,680	8.83	12,846	8.42	12,927	7.69	10,895	6.81	8,979	5.83	10,589	6.42	9,014	6.58	7,831	7.37	8,490	9.54	8,098	8.94	8,877	8.85
...TOTAL	73,449	100.00	58,595	100.00	68,800	100.00	156,700	100.00	143,552	100.00	152,555	100.00	168,091	100.00	159,792	100.00	154,032	100.00	164,784	100.00	136,990	100.00	106,277	100.00	88,965	100.00	90,593	100.00	100,308	100.00

...United States Bureau of Mines.
...a for Ohio and Crescent by courtesy of Ohio Bureau of Coal Statistics. Data for Illinois, Indiana, and Western Kentucky by courtesy of Illinois Freight Association. (4) Includes coal originating on P.R.R. and P. & W. Va. ...in Panhandle of West Virginia. (##) Includes only coal originating on B. & O. in Panhandle of West Virginia.
...des U. S. Coal Commission Fields No. 6 Blossburg; 7 Broad Top; 9abc Central Pennsylvania.
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...des U. S. Coal Commission Fields No. 10, Maryland-Potomac (or Maryland plus Grant, Mineral and Tucker Counties, West Virginia).
...des U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4ab Freeport; 5 Butler-Mercer.
...des Brooke, Hancock, Marshall and Ohio Counties in West Virginia.
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...des U. S. Coal Commission Field No. 41 Western Kentucky.

Prepared by Bituminous Coal Unit
Division of Review, N.R.A.
Under Direction of F. E. Berquist

[fol. 1084]

D.'s 29-C

Bituminous Coal Shipped to New England by Rail and by Northern and Southern Tidewater Ports, 1919–1934, in Net Tons

(Compiled from published reports of the U. S. Bureau of Mines)

Year	All-rail receipts in New England	Tidewater shipments to New England[1]: From New York, Philadelphia and Baltimore	From Hampton Roads and Charleston	Total Tidewater	Grand Total
Net tons:	a				
1919	9,655,000	3,132,213	5,253,169	8,385,382	18,040,382
1920	12,223,000	4,308,085	6,148,359	10,456,444	22,679,444
1921	8,374,000	2,840,707	6,017,924	8,858,631	17,232,631
1922	5,812,000	1,715,623	9,176,835	10,892,458	16,704,458
1923	9,634,000	3,702,907	9,671,413	13,374,320	23,008,320
1924	6,985,000	2,108,325	9,379,905	11,488,230	18,473,230
1925	7,756,000	2,257,249	11,206,213	13,463,462	21,219,462
1926	8,045,000	2,443,082	10,505,856	12,948,938	20,993,938
1927	7,232,000	2,239,410	12,589,571	14,828,981	22,060,981
1928	6,473,000	1,645,656	11,798,964	13,444,620	19,917,620
1929	6,781,000	1,569,976	12,874,909	14,444,885	21,225,885
1930	6,149,000	1,646,628	12,379,796	14,026,424	20,175,424
1931	5,611,000	1,098,673	11,547,464	12,646,137	18,257,137
1932	4,544,000	703,976	9,913,663	10,617,639	15,161,639
1933	4,787,000	791,171	10,559,355	11,350,526	16,137,526
1934	5,422,000	1,088,718	10,662,416	11,751,134	17,173,134
Percent of total					
1919	53.5	17.4	29.1	46.5	100.0
1920	53.9	19.0	27.1	46.1	100.0
1921	48.6	16.5	34.9	51.4	100.0
1922	34.8	10.3	54.9	65.2	100.0
1923	41.9	16.1	42.0	58.1	100.0
1924	37.8	11.4	50.8	62.2	100.0
1925	36.6	10.6	52.8	63.4	100.0
1926	38.3	11.6	50.1	61.7	100.0
1927	32.8	10.2	57.0	67.2	100.0
1928	32.5	8.3	59.2	67.5	100.0
1929	31.9	7.4	60.7	68.1	100.0
1930	30.5	8.2	61.3	69.5	100.0
1931	30.7	6.0	63.3	69.3	100.0
1932	30.0	4.6	65.4	70.0	100.0
1933	29.7	4.9	65.4	70.3	100.0
1934	31.6	6.3	62.1	68.4	100.0

a From records of The Commonwealth of Massachusetts, Division on the Necessaries of Life.

b Cargo coal dumped into vessels consigned to New England as reported by the railroads operating tidewater piers.

By F. G. Tryon and W. H. Young, Coal Economics Division, United States Bureau of Mines. November 4, 1935.

(Here follow Deft. Ex. 30, 30a, folios 1085 and 1086).

D.Ex. 30

INDEX OF TONS LOADED AT MINES FOR SHIPMENTS AND REALIZATION F.O.B MINE, FOR SELECTED COMPETING STATES — 1923 - 1933

1923 = 100%

THOUSANDS of NET TONS

PENNSYLVANIA

YEAR	LOADED AT MINES FOR SHIPMENT	INDEX NUMBERS SHIPMENTS	VALUE PER TON F.O.B. MINE	INDEX NUMBERS VALUE
1923	138034	100.0	2.75	100.0
1924*	110261	79.9	2.24	82.2
1925*	114854	82.9	2.10	76.4
1926*	128339	93.0	2.13	77.5
1927*	116025	84.1	2.05	74.5
1928	117785	85.3	1.90	69.1
1929	127065	92.1	1.80	65.5
1930	113885	82.5	1.72	62.5
1931	89831	65.1	1.59	57.8
1932	68023	49.3	1.34	48.7
1933	71324	51.7	1.37	49.8

WEST VIRGINIA

YEAR	LOADED AT MINES FOR SHIPMENT	INDEX NUMBERS SHIPMENTS	VALUE PER TON F.O.B. MINE	INDEX NUMBERS VALUE
1923	101893	100.0	2.65	100.0
1924*	97169	95.4	1.82	68.7
1925*	118192	116.0	1.71	64.5
1926*	138340	135.8	1.84	69.4
1927*	140536	137.9	1.72	64.9
1928	128671	126.3	1.59	60.0
1929	134282	131.7	1.55	58.5
1930	117481	115.3	1.50	56.6
1931	98316	96.5	1.31	49.4
1932	82952	81.4	1.06	40.0
1933	91329	89.6	1.14	43.0

OHIO

YEAR	LOADED AT MINES FOR SHIPMENT	INDEX NUMBERS SHIPMENTS	VALUE PER TON F.O.B. MINE	INDEX NUMBERS VALUE
1923	37182	100.0	2.43	100.0
1924*	27405	73.7	2.03	83.5
1925*	24930	67.0	1.93	79.4
1926*	24871	66.9	1.96	80.7
1927*	13144	35.4	1.92	79.0
1928	12784	34.4	1.69	69.5
1929	20841	56.1	1.51	62.1
1930	20133	54.1	1.40	57.6
1931	18534	49.9	1.24	51.0
1932	11973	32.2	1.11	45.7
1933	17249	46.4	1.20	49.4

KENTUCKY

YEAR	LOADED AT MINES FOR SHIPMENT	INDEX NUMBERS SHIPMENTS	VALUE PER TON F.O.B. MINE	INDEX NUMBERS VALUE
1923	43013	100.0	2.53	100.0
1924*	43683	101.5	1.88	74.3
1925*	53721	124.8	1.72	68.0
1926*	61291	142.4	1.74	68.8
1927*	67580	157.0	1.73	68.4
1928	60455	140.5	1.54	61.7
1929	59125	137.4	1.54	60.9
1930	50012	116.2	1.49	58.9
1931	38835	90.2	1.27	50.2
1932	34229	79.5	.99	39.1
1933	35114	81.6	1.13	44.7

INDIANA

YEAR	LOADED AT MINES FOR SHIPMENT	INDEX NUMBERS SHIPMENTS	VALUE PER TON F.O.B. MINE	INDEX NUMBERS VALUE
1923	21860	100.0	2.48	100.0
1924*	20338	81.8	2.14	87.1
1925*	20253	81.5	2.02	81.5
1926*	22020	88.6	1.98	79.8
1927*	14754	67.4	2.03	81.9
1928	15488	62.3	1.78	71.8
1929	17388	69.9	1.63	65.7
1930	15236	61.3	1.59	64.1
1931	13134	52.8	1.45	58.5
1932	12184	49.0	1.30	52.4
1933	12412	49.9	1.28	51.6

ILLINOIS

YEAR	LOADED AT MINES FOR SHIPMENT	INDEX NUMBERS SHIPMENTS	VALUE PER TON F.O.B. MINE	INDEX NUMBERS VALUE
1923	73784	100.0	2.50	100.0
1924*	63490	86.3	2.27	90.8
1925*	62712	85.0	2.19	87.6
1926*	64612	87.6	2.14	85.6
1927*	62758	57.9	2.16	86.4
1928	51513	69.8	2.00	80.0
1929	55712	75.5	1.87	74.8
1930	48922	66.3	1.74	69.6
1931	39958	54.2	1.70	68.0
1932	28794	39.0	1.53	61.2
1933	31982	43.3	1.46	58.4

VIRGINIA

YEAR	LOADED AT MINES FOR SHIPMENT	INDEX NUMBERS SHIPMENTS	VALUE PER TON F.O.B. MINE	INDEX NUMBERS VALUE
1923	10283	100.0	2.74	100.0
1924*	9754	94.9	2.04	73.9
1925*	12032	117.0	1.84	66.7
1926*	13382	130.1	1.92	69.6
1927*	12234	119.0	1.80	65.2
1928	11372	110.6	1.71	62.0
1929	12120	117.9	1.68	57.4
1930	10414	101.3	1.61	58.3
1931	9392	91.3	1.45	52.5
1932	7461	72.6	1.21	43.8
1933	7893	76.8	1.23	44.6

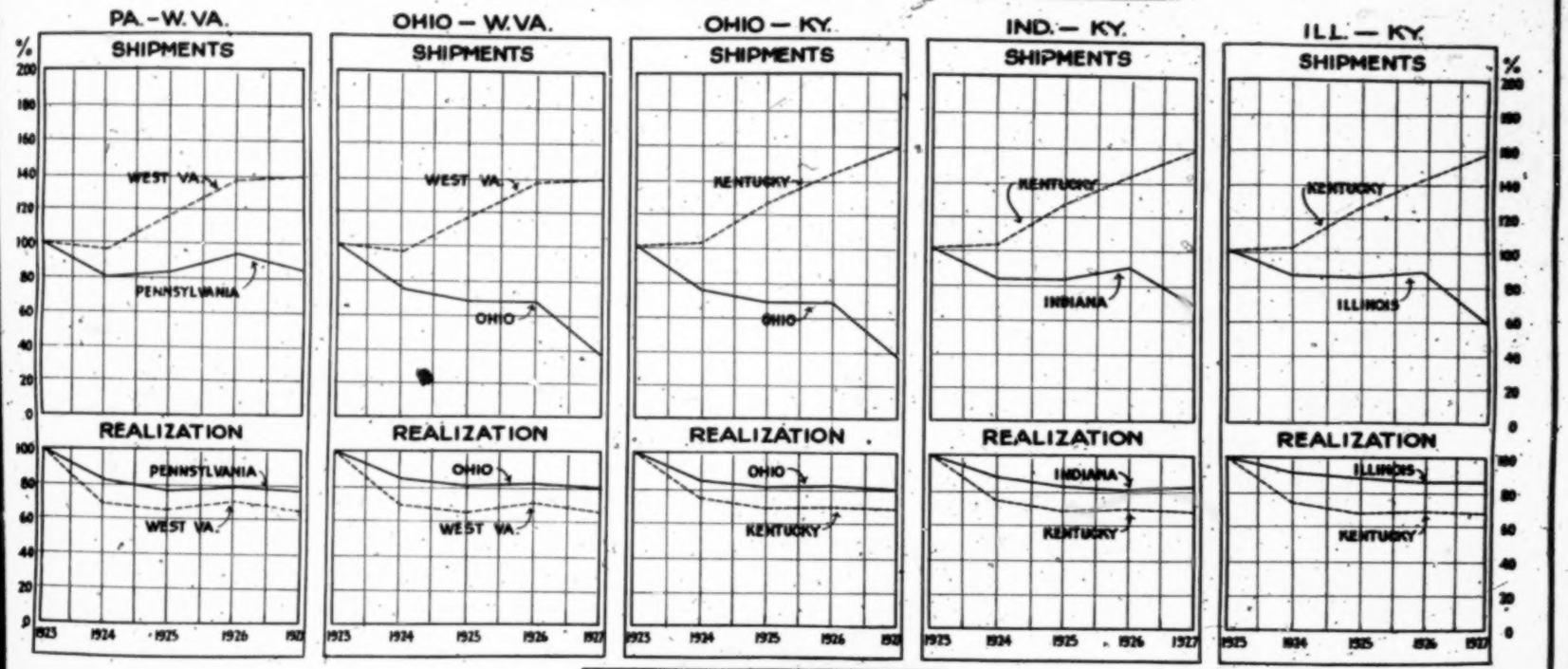
* PERIOD OF JACKSONVILLE AGREEMENT.

SOURCE: U. S. Bureau of Mines

Prepared by Bituminous Coal Unit, Division of Review, N.R.A., Under direction of F. E. Berquist

B. Ex. 89 A

Index of Tons Loaded at Mines for Shipment and Realization F.O.B. Mine, during the Period of the Jacksonville Agreement, for Selected Competing States, —— 1924 – 1927
1923 = 100%



SOURCE :- U.S. Bureau of Mines
PREPARED BY :- Bituminous Coal Unit, Division of Review, N.R.A., under the Direction of F.E. Bonquist.

[fol. 1087]

D.'s 31

Comparison of Production and Realization F. O. B. Mines, Between Two Groups of States East of the Mississippi River

1923–1933

1923=100%

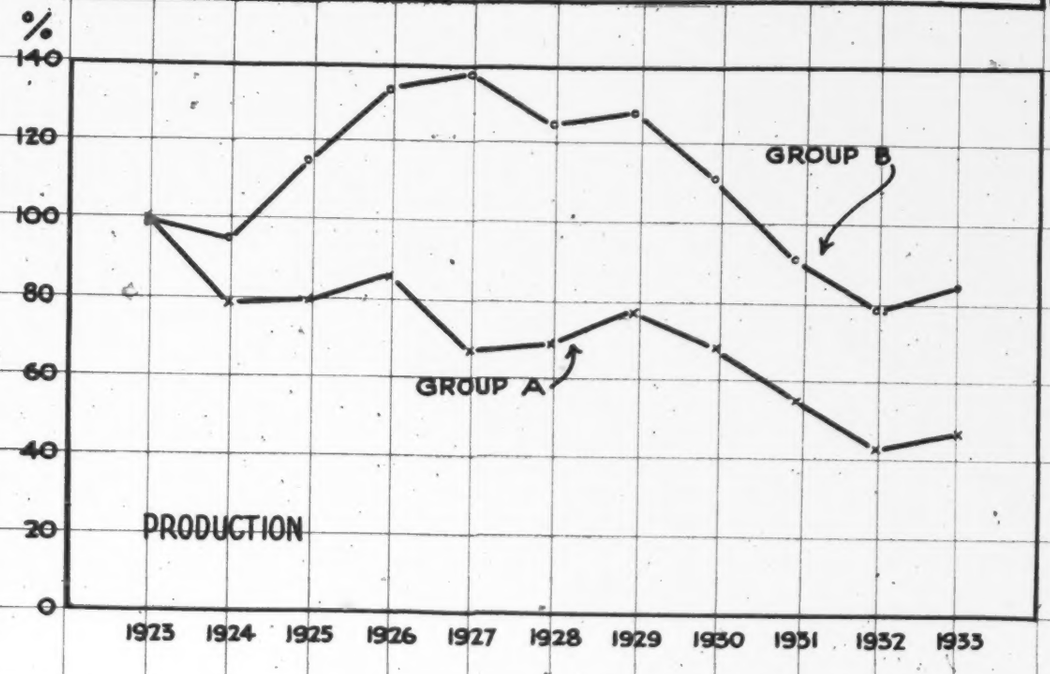
Year	Production	Index	Total Value F. O. B. Mine	Average Value (per ton)	Index
		Group "A" States[1]			
1923	317,873,087	100.0	$834,296,334	$2.62	100.0
1924	250,910,267	78.9	558,583,625	2.23	85.1
1925	253,096,344	79.6	531,060,387	2.10	80.2
1926	273,466,567	86.0	574,961,316	2.10	80.2
1927	213,548,621	67.2	440,515,263	2.06	78.6
1928	219,169,942	68.9	416,767,670	1.90	72.5
1929	246,207,240	77.5	437,430,716	1.78	67.9
1930	217,235,979	68.3	365,360,173	1.68	64.1
1931	176,668,158	55.6	276,630,561	1.57	59.9
1932	135,483,968	42.6	184,176,466	1.36	51.9
1933	150,059,141	47.2	204,379,582	1.36	51.9
		Group "B" States[1]			
1923	164,438,901	100.0	432,131,364	2.63	100.0
1924	157,503,565	95.8	291,717,883	1.85	70.3
1925	190,249,072	115.7	327,540,527	1.72	65.4
1926	220,567,188	134.1	400,681,851	1.82	69.2
1927	227,162,487	138.1	392,444,001	1.73	65.8
1928	206,713,471	125.7	328,246,719	1.59	60.5
1929	211,729,761	128.8	328,723,851	1.55	58.9
1930	183,589,010	111.6	276,071,237	1.50	57.0
1931	151,135,473	91.9	197,746,740	1.31	49.8
1932	128,600,497	78.2	134,999,383	1.05	39.9
1933	138,621,906	84.3	158,404,053	1.14	43.3

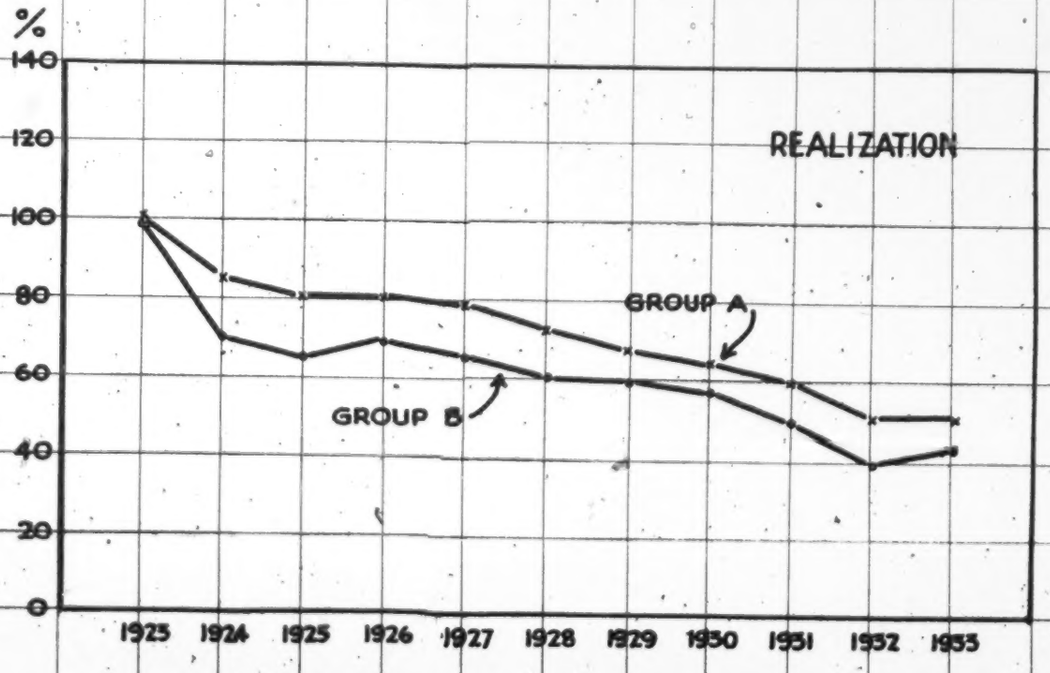
[1] Group "A" States:—Pennsylvania, Ohio, Illinois and Indiana.
Group "B" States:—Kentucky, West Virginia, Virginia.

Source: U. S. Bureau of Mines.

D.Ex. 31a

Comparison of Production and Realization, F.O.B. Mines, between Two Groups of States East of the Mississippi River, 1/ 1923 - 1933. 1923 = 100%





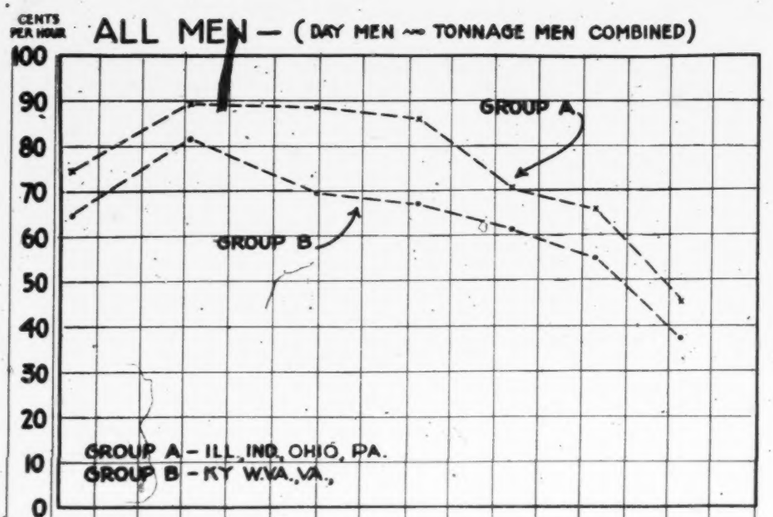
1/ Group A States - Illinois, Indiana, Ohio, Pennsylvania
Group B States - Kentucky, Virginia, West Virginia

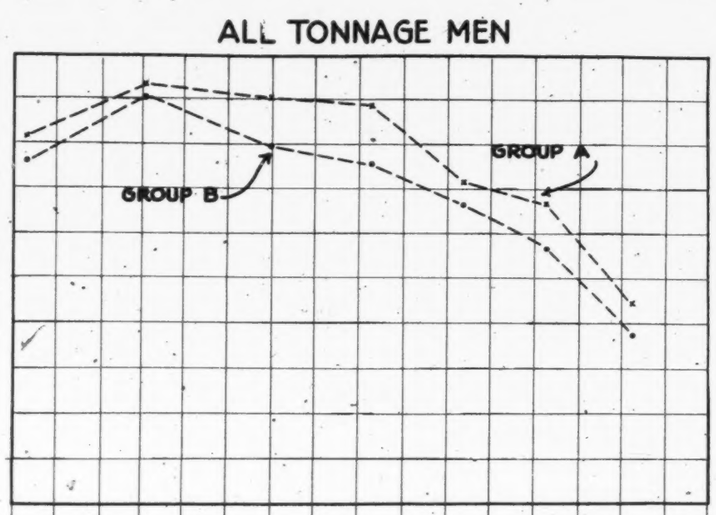
PREPARED BY: SOURCE: U.S. Bureau of Mines
Bituminous Coal Unit, Division of Review, N.R.A., under the Direction of F.E. Berquist.

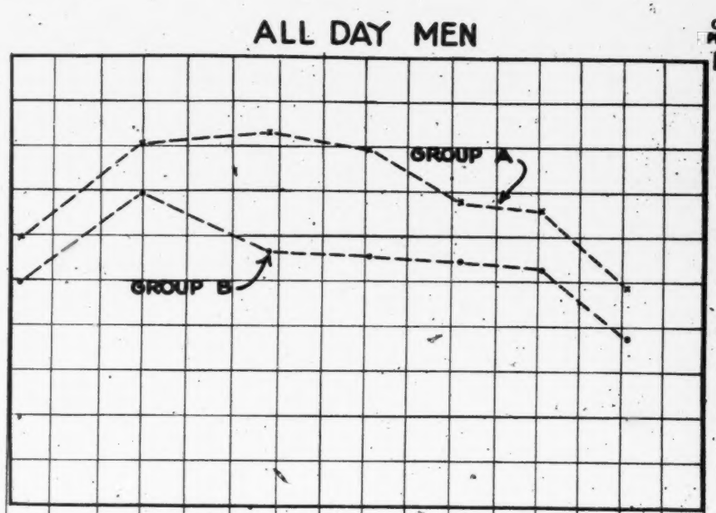
1028A

D.Ex. 32

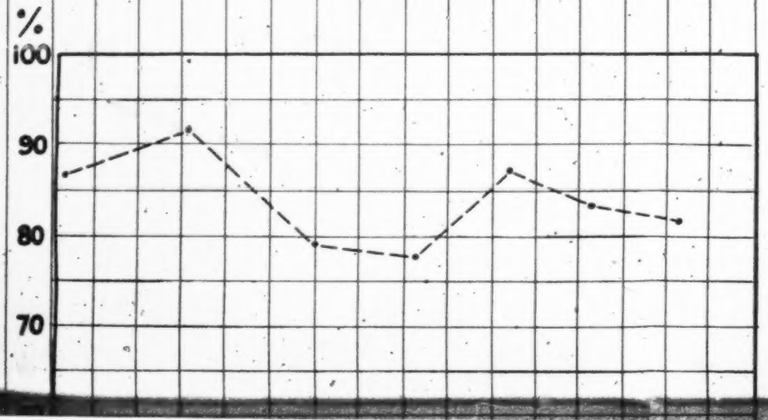
Comparison of Average Hourly Earnings between Two Groups of States East of the Mississippi River for Specified Years 1919 – 1933

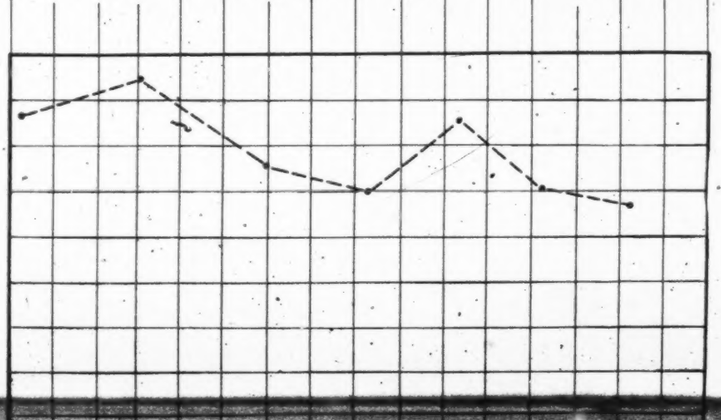


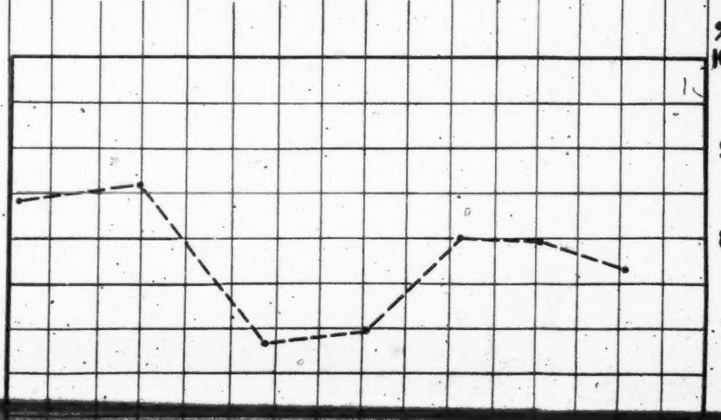


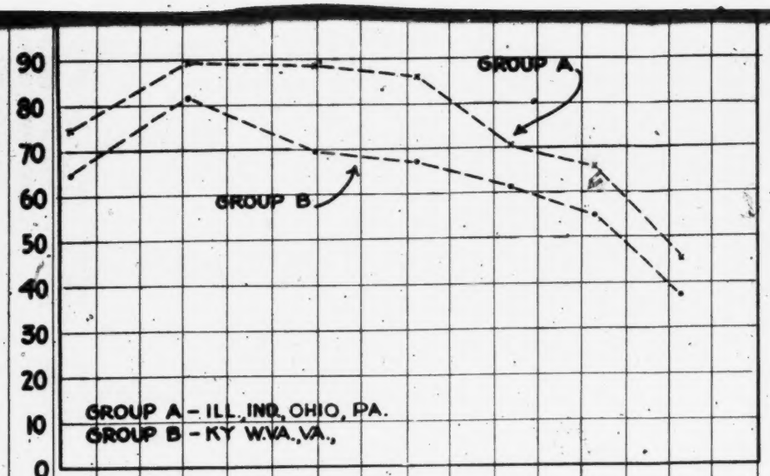


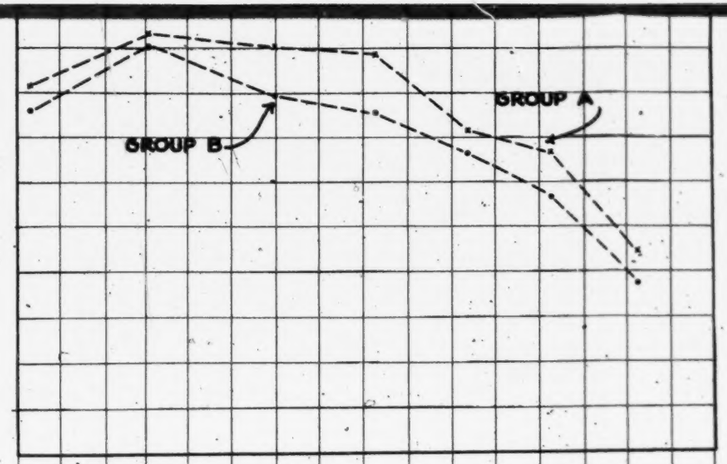
Percent which Average Hourly Earnings in Group B States is of Group A States for Specified Years 1919 – 1933

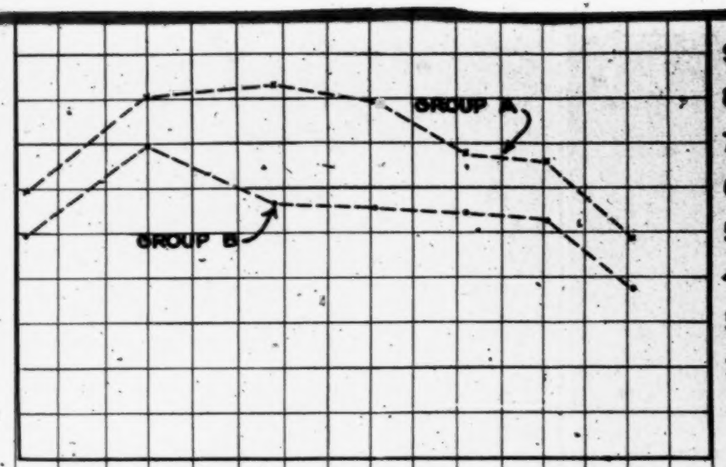




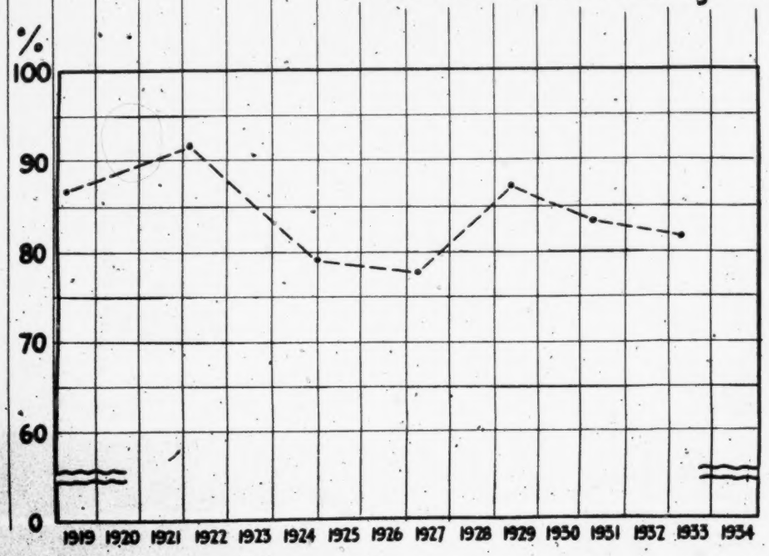


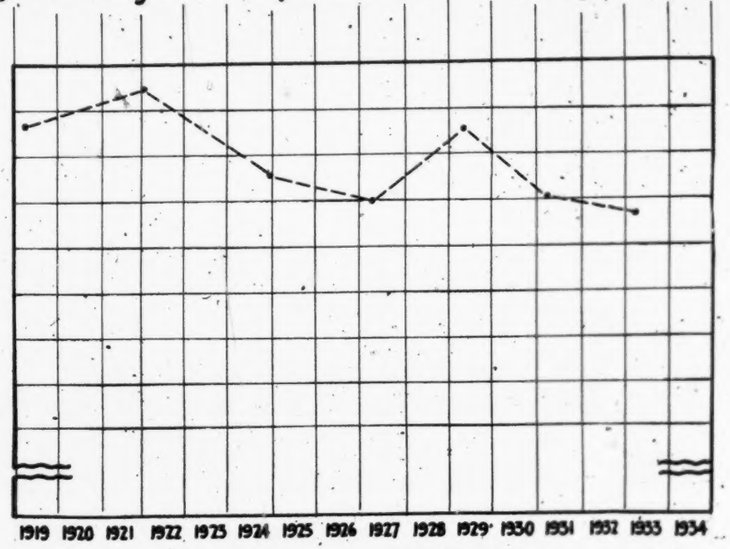


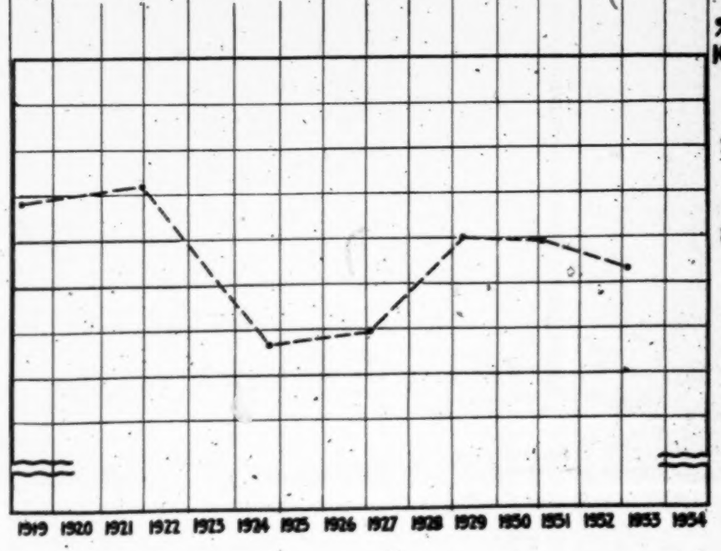




Percent which Average Hourly Earnings in Group B States is of Group A States for Specified Years 1919-1933







NOTE: Virginia not included in Average for "B" States in 1922 ———

SOURCE: U.S. Bureau of Labor Statistics.
PREPARED BY: Bituminous Coal Unit, Division of Review, N.R.A. under the direction of F.E. Berquist.

[fol. 1089-a]

Comparison of Average Hourly Earnings Between Two Groups of States East of the Mississippi River for Specified Years—1919–1933[1]

	All Men (day and tonnage combined)			
	Average Group "A" States	Average Group "B" States	Difference between Group "B" Group "A"	Per Cent Group "B" is of Group "A"
1919—January–May	.745	.647	−.098	86.8
1921–1922—Oct. 1–Feb. 15	.894	.819[a]	−.075	91.6
1924—October–December	.885	.699	−.186	79.0
1926–27—Nov. 26–Mar. 22	.860	.670	−.190	77.9
1929—1st quarter	.707	.616	−.091	87.1
1931—1st quarter	.662	.552	−.110	83.4
1933—February	.458	.375	−.084	81.7

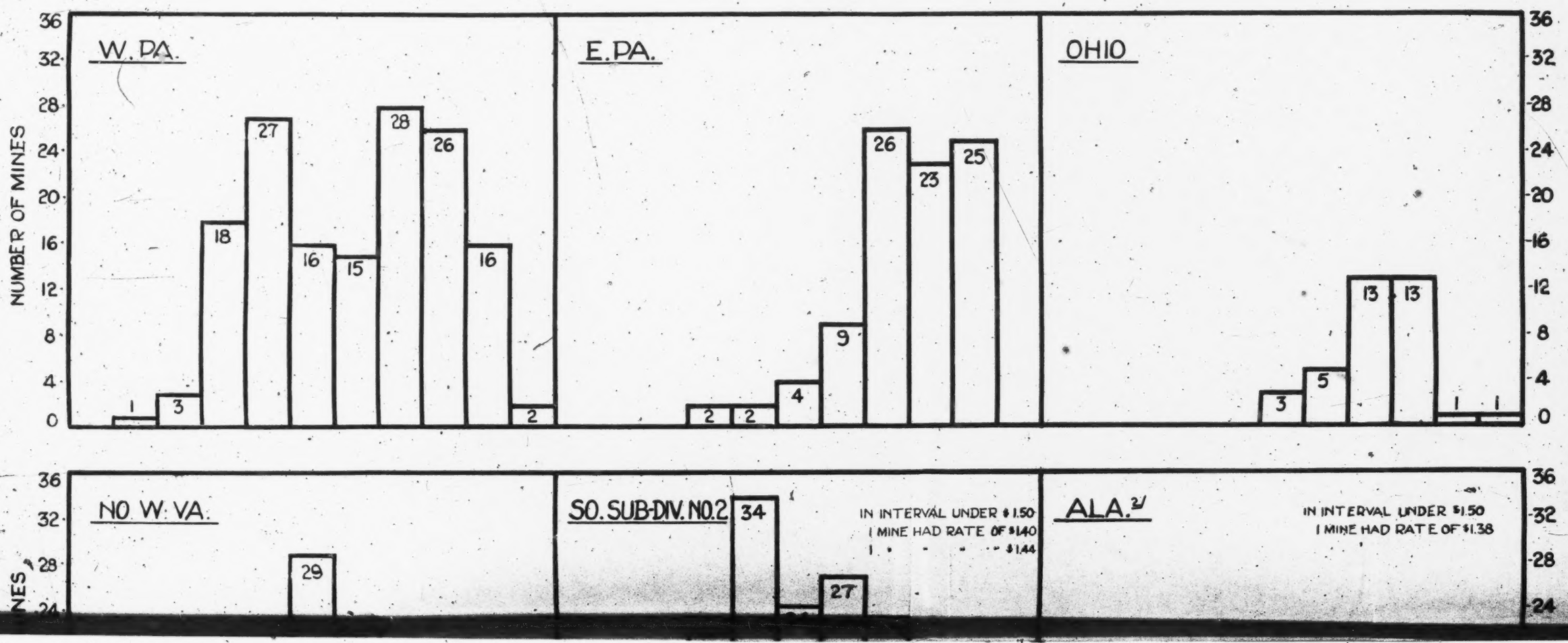
	All Tonnage Men				All Day Men			
	Average Group "A" States	Average Group "B" States	Difference between Group "B" Group "A"	Per Cent Group "B" is of Group "A"	Average Group "A" States	Average Group "B" States	Difference between Group "B" Group "A"	Per Cent Group "B" is of Group "A"
1919—Jan.–May	.815	.760	−.055	93.3	.592	.498	−.094	84.1
1921–22—Oct. 1–Feb. 15	.936	.910[a]	−.026	97.2	.809	.695[a]	−.114	85.9
1924—Oct.–Dec.	.908	.798	−.110	87.9	.831	.568	−.263	68.4
1926–27—Nov. 26–Mar. 22	.888	.755	−.133	85.0	.795	.555	−.240	69.8
1929—1st quarter	.718	.666	−.052	92.8	.681	.545	−.136	80.0
1931—1st quarter	.667	.568	−.099	85.2	.661	.527	−.134	79.7
1933—February	.448	.374	−.074	83.5	.489	.375	−.114	76.7

Source: U. S. Bureau of Labor Statistics.

[1] Group "A" includes: Illinois, Indiana, Ohio, Pennsylvania. Group "B" includes: Kentucky, Virginia, West Virginia.
[a] Does not include Virginia.

(Here follow Deft. Ex. 33, 33a, 34, 34a, side folios 1090, 1091 and 1092.)

No. of Mines in Selected Areas in which Trackmen were paid Rates Falling in Specified Wage Rate Intervals May 1933 1/



NUMBER OF MINES

NO. W. VA.

IN INTERVAL UNDER $1.50
1 MINE HAD RATE OF $1.40
1 " " " " $1.44

SO. SUB-DIV. NO. 2

IN INTERVAL UNDER $1.50
1 MINE HAD RATE OF $1.38

ALA. 2/

DOLLARS PER DAY	CENTS PER HOUR	NO. W. VA.	SO. SUB-DIV. NO. 2	ALA. 2/
UNDER 1.50	0 .187	1	2	1
1.50 1.74	.188 .218	1	5	3
1.75 1.99	.219 .249	2	13	4
2.00 2.24	.250 .280	4	21	4
2.25 2.49	.281 .311	29	34	2
2.50 2.74	.312 .343	22	24	5
2.75 2.99	.344 .374		27	4
3.00 3.24	.375 .405	5	23	
3.25 3.49	.406 .436	2	5	
3.50 3.99	.437 .499	1	5	
4.00 AND OVER	.500 AND OVER		4	

1/ Reported by Operators to Bituminous Coal Unit, N.R.A., on Form "C."
NOTE: Certain Mines Reported More Than One Rate, and these were counted as Separate Reports.

2/ More than half the Mines were Working 9 to 10 Hour Days.

Prepared by Bituminous Coal Unit Division of Review, N.R.A.
Under Direction of F. E. Berquist.

D.Ex. 33-A

NUMBER AND PERCENT OF MINES IN SELECTED AREAS IN WHICH TRACKMEN WERE PAID RATES FALLING IN SPECIFIED WAGE RATE INTERVALS 1/

MAY—1933

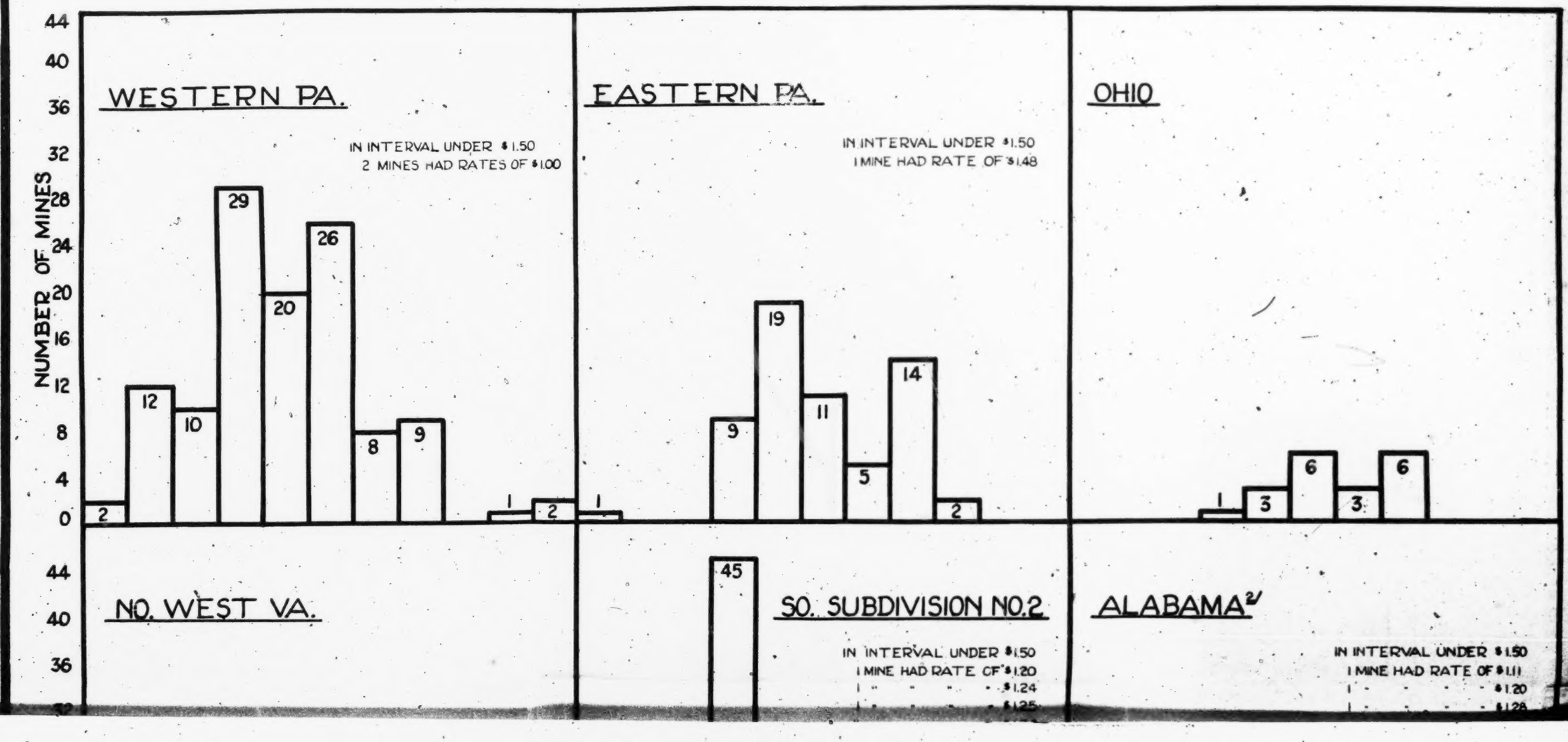
DIVISION I	TOTAL NUMBER MINES	NOT REPORTING OR REPORTING INADEQUATELY	TOTAL TONNAGE INCLUDED	RATES--- UNDER $1.50	1.50-1.74	1.75-1.99	2.00-2.24	DOLLARS 2.25-2.49	PER DAY 2.50-2.74	2.75-2.99	3.00-3.24	3.25-3.49	3.50-3.99	4.00-OVER	TOTAL ACROSS	
WESTERN PENNSYLVANIA	173	22	151		1 (0.7)	3 (2.0)	18 (11.8)	27 (17.8)	16 (10.5)	15 (9.9)	28 (18.4)	24 (17.1)	16 (10.8)	2 (1.3)	152 (100.0)	1 MINE REPORTS MORE THAN 1 RATE
EASTERN PENNSYLVANIA	144	53	91				2 (2.2)	2 (2.2)	4 (4.4)	9 (9.9)	24 (32.6)	23 (28.3)	25 (27.4)		91 (100.0)	
MARYLAND & UPPER POTOMAC	18	13	5				1 (20.0)	1 (20.0)	3 (60.0)						5 (100.0)	
OHIO	55	19	36						3 (8.3)	5 (13.9)	13 (36.1)	13 (36.1)	1 (2.8)	1 (2.8)	36 (100.0)	
NORTHERN WEST VIRGINIA	86	29	57		1 (1.5)	1 (1.5)	2 (3.0)	4 (6.0)	29 (43.3)	22 (32.8)	5 (7.4)	2 (3.0)	1 (1.5)		67 (100.0)	10 MINES REPORT MORE THAN 1 RATE
SOUTHERN No.1 (So.W.Va.)	139	126	13						1 (7.7)	6 (46.1)	5 (38.5)		1 (7.7)		13 (100.0)	
SOUTHERN No.2	311	148	163	2 (1.2)	5 (3.1)	13 (8.0)	21 (12.9)	34 (20.8)	24 (14.7)	27 (16.6)	23 (14.1)	5 (3.1)	5 (3.1)	4 (2.4)	163 (100.0)	
KANAWHA, W. VIRGINIA	61	31	30		1 (3.3)	2 (6.7)		4 (13.3)	6 (20.0)	4 (13.4)	6 (20.0)	3 (10.0)	3 (10.0)	1 (3.3)	30 (100.0)	
LOGAN, W. VIRGINIA	39	23	16					2 (12.5)	6 (37.5)	7 (43.8	1 (6.2)				16 (100.0)	
BIG SANDY-ELKHORN, KENTUCKY	45	14	31	1 (3.2)			2 (6.5)	5 (16.1)	1 (3.2)	6 (19.4)	7 (22.6)	5 (16.1)	1 (3.2)	1 (3.2)	2 (6.5)	31 (100.0)
HAZARD, KENTUCKY	37	16	21		1 (4.8)		4 (19.0)	4 (19.0)	4 (19.1)	2 (9.5)	3 (14.3)	2 (9.5)	1 (4.8)			21 (100.0)
HARLAN, KENTUCKY	25	15	10					4 (40.0)	2 (20.0)		2 (20.0)			1 (10.0)	1 (10.0)	10 (100.0)
VIRGINIA	32	14	18				2 (11.1)	2 (11.1)	6 (33.3)		2 (11.1)	6 (33.4)				18 (100.0)
WILLIAMSON, So.W.Va. & No.Ky	38	17	21		1 (4.8)	1 (4.8)	2 (9.5)	12 (57.1)	2 (9.5)	1 (4.8)	2 (9.5)					21 (100.0)
SOUTHERN APPALACHIAN, So.Ky No.Tenn.	34	18	16	1 (6.3)	2 (12.5)	2 (12.5)	4 (25.0)	3 (18.7)	2 (12.5)	1 (6.2)	1 (6.3)					16 (100.0)
DIVISION III																
ALABAMA 2/	36	13	23	1 (4.3)	3 (13.1)	4 (17.4)	4 (17.4)	2 (8.7)	5 (21.7)	4 (17.4)					23 (100.0)	
So. TENNESSEE & GEORGIA	6	2	4					3 (75.0)		1 (25.0)					4 (100.0)	

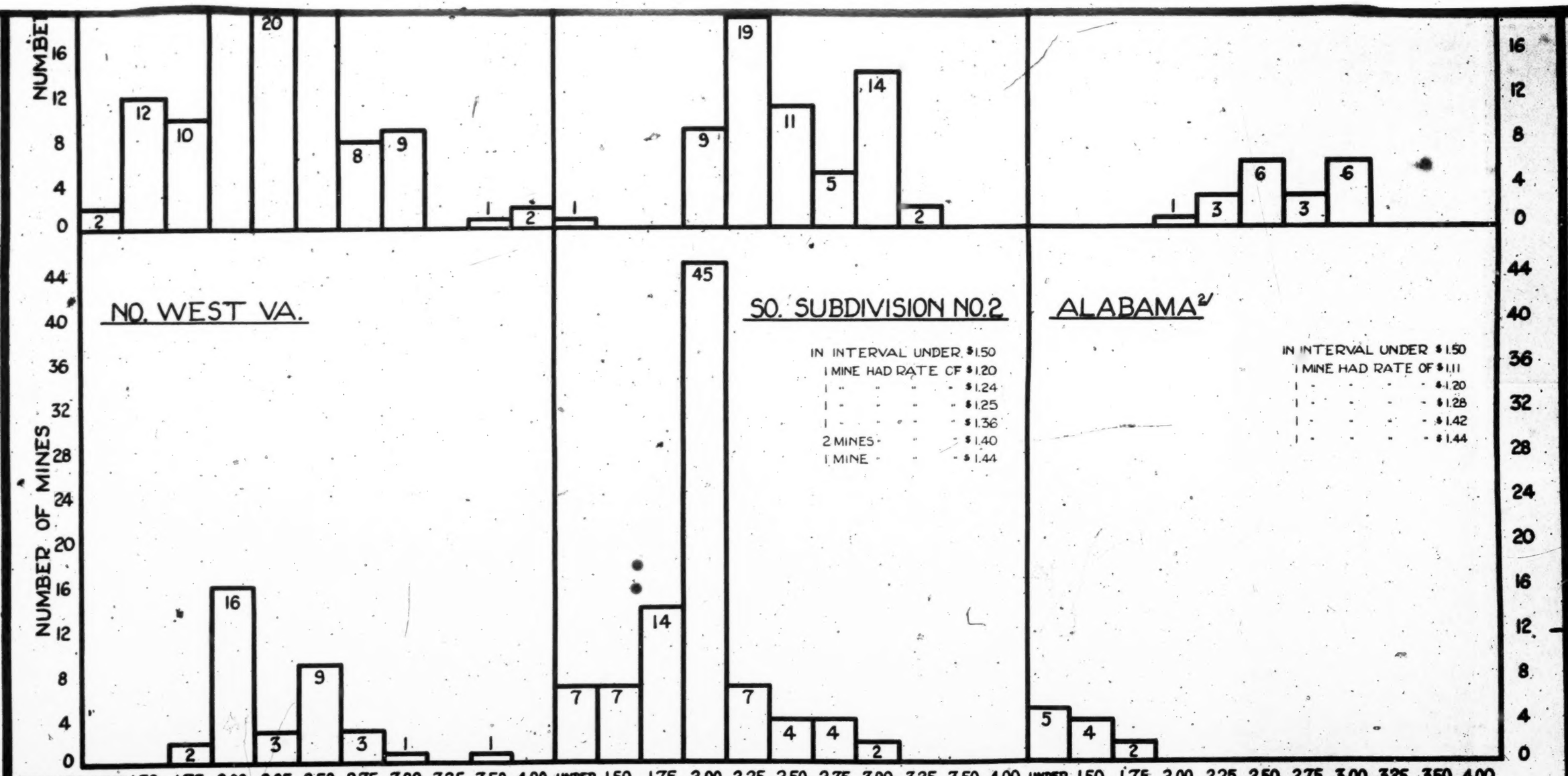
1/ REPORTED BY OPERTORS TO BITUMINOUS COAL UNIT N.R.A. on FORM "C"

2/ MORE THAN HALF THE MINES IN ALABAMA WERE WORKING A 9 OR 10 HOUR DAY

NOTE: FIGURES IN PARENTHESIS ARE PERCENTAGES

Number of Mines-Selected Areas in which Outside Common Labor was paid Rates Falling in Specified Wage Rate Intervals — May 1933 1/





IN INTERVAL UNDER $1.50
1 MINE HAD RATE OF $1.20
1 - - - - $1.24
1 - - - - $1.25
1 - - - - $1.36
2 MINES - - $1.40
1 MINE - - $1.44

IN INTERVAL UNDER $1.50
1 MINE HAD RATE OF $1.11
1 - - - - $1.20
1 - - - - $1.28
1 - - - - $1.42
1 - - - - $1.44

1/ Reported by Operators to Bituminous Coal Unit N.R.A. on Form "C"

NOTE: Certain Mines Reported More Than One Rate, and these were counted as Separate Reports.

2/ More than half the Mines were working a 9 or 10 Hour day.

Prepared by Bituminous Coal Unit, Division of Review, N.R.A., Under Direction of F.E. Berquist.

NUMBER AND PERCENT OF MINES IN SELECTED AREAS IN WHICH OUTSIDE COMMON LABOR WAS PAID RATES FALLING IN SPECIFIED WAGE RATE INTERVALS 1/
MAY 1933

Division I	Total Number of Mines	Mines not reporting (no employees)	Total Number Reporting	Rates in Dollars per Day: Under $1.50	1.50 - 1.74	1.75 - 1.99	2.00 - 2.24	2.25 - 2.49	2.50 - 2.74	2.75 - 2.99	3.00 - 3.24	3.25 - 3.49	3.50 - 3.99	4.00 over	Total - Workers	
Western Pennsylvania	123	19	104	2 (1.7)	12 (10.1)	10 (8.4)	29 (24.4)	20 (16.8)	26 (21.8)	8 (6.7)	9 (7.6)		1 (0.8)	2 (1.7)	119 (100.0)	4 mines reported more than 1 district
Eastern Pennsylvania	99	39	60	1 (1.6)			9 (14.8)	19 (31.1)	11 (18.0)	5 (8.2)	14 (23.0)	2 (3.3)			61 (100.0)	1 mine reported in 2 areas
Maryland & Upper Potomac	15	9	6				2 (33.3)	3 (50.0)	1 (16.7)						6 (100.0)	
Ohio	31	12	19				1 (5.2)	3 (15.8)	6 (31.6)	3 (15.8)	6 (31.6)				19 (100.0)	
Northern West Virginia	45	10	35			2 (5.7)	16 (46.7)	3 (8.6)	9 (26.7)	3 (8.6)	1 (2.8)		1 (2.9)		35 (100.0)	
Southern No. 1	94	87	7				6 (85.7)	1 (14.3)							7 (100.0)	
Southern No. 2	186	96	90	7 (7.8)	7 (7.8)	16 (17.8)	45 (50.0)	7 (7.8)	4 (4.4)	4 (4.4)	2 (2.2)				90 (100.0)	
Kanawha, W. Virginia	40	21	19		2 (10.5)		7 (36.8)	5 (26.3)	3 (15.8)	1 (5.3)	1 (5.3)				19 (100.0)	
Logan	31	20	11			2 (18.2)	8 (72.7)	1 (9.1)							11 (100.0)	
Big Sandy-Elkhorn, Kentucky	29	7	22	3 (13.6)	1 (4.5)	6 (27.3)	11 (50.0)		1 (4.6)						22 (100.0)	
Hazard, Kentucky	20	12	8	2 (25.0)	1 (12.5)		4 (50.0)	1 (12.5)							8 (100.0)	
Harlan, Kentucky	18	13	5	1 (20.0)			2 (40.0)			1 (20.0)	1 (20.0)				5 (100.0)	
Virginia	14	5	9		2 (22.2)	1 (11.1)	6 (66.7)								9 (100.0)	
Williamson, Southern W. Va. & Ky.	18	7	11		1 (9.1)	8 (72.7)	8 (18.2)								11 (100.0)	
Southern Appalachians, So. Kentucky, No. Tennessee	16	11	5	1 (20.0)			2 (40.0)			2 (40.0)					5 (100.0)	
Division III																
Alabama	17	7	10	5 (45.4)	4 (36.4)	2 (18.2)									11 (100.0)	1 mixed 10 hour 1 over
So. Tennessee and Georgia	3	1	2		2 (100.0)										2 (100.0)	

1/ Reported by operators to Bituminous Coal Unit, N.R.A. on Form "C"
2/ More than half the mines in Alabama were working a 9 or 10 hour day.
Note: Figures in parenthesis are percentages.

Importance of Bituminous Coal in Freight Railway Traffic

Proportion that Tons Originated and Freight Revenue for Bituminous Coal Are of Total, for Class I, 1924 to 1934

	Thousands of Revenue tons originated			Thousands of Dollars of freight revenue (1)			
	Total tons	Bituminous Coal		Total revenue	Bituminous Coal		$ per ton Coal originated
		Tons	% of Total		Revenue	% of Total	
1924	1,188,157	321,081	27.0				
1925	1,247,137	346,348	27.8				
1926	1,336,528	389,086	29.1				
1927	1,282,027	361,843	28.2				
1928	1,285,943	346,057	26.9	4,830,227	784,470	16.2	2.27
1929	1,339,091	368,339	27.5	4,966,611	827,799	16.7	2.25
1930	1,153,197	322,150	27.9	4,206,496	718,448	17.1	2.23
1931	894,186	263,991	29.5	3,359,181	585,933	17.4	2.22
1932	646,223	218,196	33.8	2,533,726	493,457	19.5	2.26
1933	698,943	230,837	33.0	2,578,985	508,117	19.7	2.20
1934	765,296	244,735	32.0	2,729,903	525,801	19.3	2.15

(1) Not officially reported by commodities until 1928.

Source: Freight Commodity Statistics, Class I Steam Railways in the U. S. Interstate Commerce Commission.

Prepared by Bituminous Coal Unit, Division of Review, N. R. A., under Direction of F. E. Berquist.

ANNUAL BITUMINOUS COAL PRODUCTION: STATE TOTALS AND THEIR PROPORTIONS OF TOTAL UNITED STATES, 1913 - 1934.

		1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934 (preliminary)
Alabama	Tons	17,678,522	15,593,422	14,927,937	18,085,197	20,066,074	19,184,962	15,536,721	16,294,099	12,566,899	16,324,740	20,457,649	19,130,184	20,004,395	21,000,962	19,765,866	17,621,362	17,943,923	15,570,058	11,996,721	7,896,939	8,720,349	9,596,000
	Per cent	3.7	3.7	3.6	3.6	3.6	3.3	3.3	2.9	3.0	4.3	3.6	4.0	3.9	3.7	3.8	3.5	3.4	3.3	3.7	2.5	2.6	2.7
Arkansas	Tons	2,234,107	1,836,540	1,652,106	1,994,915	2,143,579	2,227,369	1,429,020	2,103,396	1,227,777	1,110,046	1,296,892	1,451,503	1,220,039	1,459,017	1,548,834	1,660,973	1,695,108	1,533,434	1,153,995	1,033,471	882,984	2,250,000 B/
	Per cent	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.2	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6
Colorado	Tons	9,232,510	8,170,599	8,684,980	10,484,237	12,483,336	12,807,571	10,323,420	12,276,225	9,122,760	10,019,997	10,346,218	10,444,998	10,310,551	10,637,225	9,784,075	9,847,707	9,920,741	8,196,910	6,604,369	5,598,721	5,889,767	5,166,000
	Per cent	1.9	1.9	1.9	2.1	2.3	2.1	2.2	2.1	2.2	2.4	1.8	2.2	2.0	1.9	1.9	2.0	1.9	1.8	1.7	1.8	1.6	1.5
Georgia	Tons	295,626	166,496	138,496	173,594	119,028	66,716	53,337	50,156	33,815	60,636	75,620	74,947	66,174	59,869	76,712	58,350	44,636	7,092	21,580	27,208	41,382	47,000 B/
	Per cent	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Illinois	Tons	61,618,794	57,589,197	58,829,576	66,195,336	86,199,387	89,291,105	60,862,608	88,724,893	69,602,763	58,867,736	79,310,075	68,323,281	66,909,359	69,366,923	46,868,224	55,948,199	60,657,601	53,731,230	44,303,295	33,474,953	37,413,145	40,000,000
	Per cent	12.9	13.6	13.5	13.2	15.6	15.4	13.1	15.6	16.7	13.8	14.1	14.1	12.9	12.1	9.0	11.2	11.3	11.5	11.6	10.8	11.2	11.4
Indiana	Tons	17,165,671	16,041,132	17,006,152	20,093,528	26,539,329	30,678,634	20,912,288	29,350,985	20,319,509	19,132,689	26,279,099	21,480,213	21,224,966	23,186,006	17,935,758	16,378,580	18,344,356	16,489,962	14,295,165	13,323,573	13,761,092	14,000,000
	Per cent	3.6	3.9	4.0	4.8	4.8	5.3	4.5	5.2	4.9	4.5	4.7	4.5	4.1	4.0	3.5	3.3	3.4	3.5	3.5	4.3	4.1	4.2
Iowa	Tons	7,525,936	7,451,022	7,614,143	7,260,800	8,965,830	8,192,195	5,628,692	7,813,316	4,531,392	4,335,161	5,710,735	5,468,450	4,714,843	4,625,487	2,949,622	3,683,635	4,241,069	3,892,571	3,388,395	3,862,435	3,194,983	3,365,000
	Per cent	1.6	1.8	1.7	1.5	1.6	1.4	1.2	1.4	1.1	1.0	1.0	1.1	0.9	0.8	0.6	0.7	0.8	0.8	0.9	1.3	1.0	0.9
Kansas	Tons	7,202,210	6,860,988	6,824,474	6,881,455	7,184,975	7,561,947	5,224,724	5,926,808	3,466,641	2,955,170	4,443,149	4,247,733	4,524,851	4,416,480	3,443,762	2,809,724	2,975,971	2,429,929	1,986,870	1,952,885	2,217,622	5,800,000 A/
	Per cent	1.5	1.6	1.6	1.4	1.3	1.3	1.1	1.0	0.8	0.7	0.8	0.9	0.9	0.8	0.7	0.6	0.6	0.5	0:5	0.6	0.7	1.6
Kentucky	Tons	19,616,600	20,382,763	21,361,674	25,393,997	27,807,971	31,612,617	30,036,061	35,690,762	31,588,270	42,134,175	44,777,317	45,147,204	55,068,670	62,924,462	69,123,998	61,860,379	60,462,600	51,208,995	39,963,621	35,299,582	36,099,789	38,068,000
	Per cent	4.1	4.8	5.1	5.0	5.5	6.5	6.3	7.6	10.0	7.9	9.3	10.6	11.0	13.4	12.4	11.3	11.0	10.5	11.4	10.6	10.6
Maryland	Tons	4,779,839	4,133,547	4,180,477	4,460,046	4,745,924	4,497,297	3,021,686	4,065,239	1,827,740	1,222,707	2,285,926	2,133,703	2,694,572	3,078,353	2,414,842	2,686,979	2,649,114	2,270,993	2,005,773	1,428,937	1,530,748	1,660,000
	Per cent	1.0	1.0	0.9	0.9	0.9	0.8	0.6	0.7	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Michigan	Tons	1,231,786	1,283,030	1,156,138	1,180,360	1,374,805	1,464,818	996,595	1,489,765	1,141,715	929,390	1,172,075	831,020	808,233	646,707	756,763	617,342	804,869	661,113	359,403	446,149	406,584	631,000
	Per cent	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2
Missouri	Tons	4,318,125	3,935,980	3,811,593	4,742,146	5,670,599	5,667,730	3,979,798	5,369,565	3,551,621	2,924,750	3,403,151	2,480,880	2,694,215	3,008,495	3,064,243	3,732,421	4,030,311	3,853,150	3,620,497	4,069,598	3,432,212	B/
	Per cent	0.9	0.9	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.7	0.6	0.5	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.3	1.0	
Montana	Tons	3,240,973	2,805,173	2,789,755	3,632,527	4,226,689	4,532,505	3,236,369	4,413,866	2,733,958	2,572,221	3,147,678	2,905,365	3,043,686	2,797,760	3,143,638	3,324,195	3,407,526	3,022,004	2,378,052	2,125,285	2,152,207	2,600,000
	Per cent	0.7	0.7	0.6	0.7	0.8	0.8	0.7	0.8	0.7	0.6	0.6	0.6	0.5	0.5	0.6	0.7	0.6	0.7	0.6	0.7	0.6	0.7
New Mexico	Tons	3,708,806	3,877,689	3,817,940	3,793,011	4,000,527	4,023,239	3,138,756	3,683,440	2,453,482	3,147,173	2,915,173	2,786,063	2,556,851	2,817,923	2,935,539	2,711,851	2,622,769	1,969,433	1,552,822	1,263,386	1,226,236	1,250,000
	Per cent	0.8	0.9	0.9	0.8	0.7	0.7	0.7	0.6	0.6	0.7	0.5	0.6	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4
North Carolina	Tons	-	-	-	-	-	1,420	6,989	11,540	23,438	78,570	36,019	57,094	65,153	57,939	53,377	60,860	52,180	28,500	2,363	1,900	2,014	B/
	Per cent	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
North Dakota	Tons	495,320	506,685	528,078	634,912	790,548	719,733	840,999	948,625	864,903	1,327,564	1,385,400	1,200,527	1,324,620	1,370,244	1,527,939	1,649,930	1,862,130	1,700,157	1,519,307	1,739,658	1,782,272	1,830,000 B/
	Per cent	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.6	0.5	0.5
Ohio	Tons	36,200,527	18,843,115	22,434,691	34,728,219	40,746,734	45,812,943	35,876,682	45,878,191	31,942,776	26,953,791	40,586,443	30,473,007	28,034,112	27,872,488	15,799,691	15,641,225	23,689,477	22,551,978	20,410,995	13,909,451	19,588,763	20,842,000
	Per cent	7.6	4.5	5.1	6.9	7.4	7.9	7.7	8.1	7.7	6.4	7.2	6.3	5.4	4.9	3.1	3.1	4.4	4.8	5.4	4.5	5.9	5.8
Oklahoma	Tons	4,165,770	3,988,613	3,693,580	3,608,011	4,386,644	4,813,447	3,802,113	4,869,288	3,362,623	2,802,511	2,885,038	2,329,615	2,325,840	2,842,673	3,818,054	3,501,325	3,774,080	2,793,954	1,908,394	1,295,466	1,238,284	B/
	Per cent	0.9	1.0	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.5	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.4	0.4	
Pennsylvania	Tons	173,781,217	147,983,294	157,955,137	170,295,424	172,448,142	178,550,741	150,758,154	170,607,847	116,013,942	113,148,308	171,879,913	130,633,773	136,928,014	153,041,638	132,964,639	131,202,163	143,516,241	124,462,787	97,658,698	74,775,862	79,295,944	89,223,000
	Per cent	36.3	35.0	35.7	35.9	31.3	30.8	32.4	30.0	27.9	26.8	30.5	27.0	26.3	26.7	25.7	26.2	26.8	26.6	25.6	24.2	23.8	24.9
Tennessee	Tons	6,860,184	5,943,258	5,730,361	6,137,449	6,194,221	6,831,048	5,213,205	6,662,428	4,460,326	4,876,774	6,040,268	4,556,559	5,454,011	5,788,741	5,783,367	5,610,999	5,405,464	5,130,428	4,721,548	3,537,882	3,774,761	4,096,000
	Per cent	1.4	1.4	1.3	1.2	1.1	1.2	1.1	1.2	1.1	1.2	1.1	1.0	1.1	1.0	1.1	1.1	1.0	1.1	1.2	1.1	1.1	1.1
Texas	Tons	2,489,144	2,323,773	2,088,908	1,987,503	2,355,815	2,261,135	1,680,656	1,615,015	972,839	1,106,007	1,187,329	1,147,011	1,006,375	1,091,158	1,326,385	1,182,034	1,100,668	833,672	716,020	636,590	821,878	716,000
	Per cent	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.2	0:2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Utah	Tons	3,254,828	3,103,036	3,106,715	3,567,428	4,125,230	5,136,825	4,631,323	6,005,199	4,078,784	4,992,008	4,720,217	4,488,157	4,690,342	4,373,793	4,781,480	4,842,544	5,160,521	4,257,541	3,350,044	2,852,127	2,674,986	2,415,000
	Per cent	0.7	0.7	0.7	0.8	0.8	0.9	1:0	1.0	1.0	1.2	0.8	0.9	0.9	0.8	0.9	1.0	1.0	0.9	0.9	0.9	0.8	0.7
Virginia	Tons	6,825,068	7,959,535	8,122,596	9,707,474	10,087,091	10,289,806	9,326,830	11,378,606	7,492,374	10,491,174	11,761,643	10,693,469	12,799,443	14,133,386	12,916,042	11,900,933	12,743,306	10,907,377	9,698,680	7,692,180	8,178,642	9,100,000
	Per cent	1.8	1.9	1.8	1.9	1.8	1.8	2.0	2.0	1.8	2.5	2.1	2.2	2.5	2.5	2.5	2.4	2.4	2.3	2.5	2.5	2.5	2.5
Washington	Tons	3,877,891	3,064,820	2,429,095	3,038,588	4,009,902	4,082,212	2,990,447	3,757,093	2,428,722	2,581,165	2,926,392	2,653,667	2,537,894	2,586,966	2,635,062	2,539,901	2,521,327	2,301,928	1,846,461	1,591,426	1,394,066	1,387,000
	Per cent	0.8	0.7	0.6	0.6	0.7	0.7	0.6	0.7	0.6	0.6	0.5	0.6	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4
West Virginia	Tons	71,854,136	71,707,626	77,184,069	86,460,127	86,441,667	89,935,639	79,036,553	89,970,707	72,786,996	80,488,192	107,899,941	101,662,897	122,380,959	143,509,340	105,122,847	132,952,199	138,516,855	121,472,638	101,473,172	85,606,739	94,393,535	96,190,000
	Per cent	14.9	17.0	17.4	17.2	15.7	15.5	17.0	15.8	17.5	19.3	19.1	21.0	23.5	25.0	28.0	26.6	25.9	26.0	26.6	27.7	28.5	27.4
																		6,705,790	6,088,133	4,993,686	4,170,963	4,013,167	4,392,000

	Tons	61,611,704	57,589,197	58,829,576	66,195,336	86,199,387	89,291,105	60,852,608	88,724,893	69,602,763	58,467,736	79,310,075	66,323,281	66,909,359	69,364,923	46,846,224	55,944,399	60,657,641	53,731,230	48,303,295	33,476,953	37,423,145	40,500,000
	Per cent	12.9	13.6	13.3	13.2	15.6	15.4	13.1	15.6	16.7	15.8	14.1	14.1	12.9	12.1	9.0	11.2	11.3	11.5	11.6	10.8	11.9	11.4
Illinois	Tons	17,165,672	16,641,132	17,006,152	20,093,528	26,539,329	30,676,634	20,919,288	29,350,985	20,319,909	19,132,689	26,253,099	21,440,213	21,224,966	23,186,006	17,935,758	16,376,980	18,344,356	16,489,962	14,895,365	11,325,573	13,781,032	15,188,000
	Per cent	3.6	3.9	3.8	4.0	4.8	5.3	4.5	5.2	4.9	4.5	4.7	4.5	4.1	4.0	3.5	3.3	3.4	3.5	3.7	3.5	4.1	4.2
Iowa	Tons	7,525,936	7,451,022	7,614,143	7,260,800	6,965,830	8,192,195	5,624,692	7,413,316	4,531,392	4,335,161	5,710,735	5,468,490	4,714,843	4,625,487	2,949,622	3,683,635	4,241,069	3,892,571	3,388,395	3,862,435	3,394,983	3,595,000
	Per cent	1.6	1.8	1.7	1.5	1.6	1.4	1.2	1.4	1.1	1.0	1.0	1.1	0.9	0.8	0.6	0.7	0.8	0.8	0.9	1.3	1.0	0.9
Kansas	Tons	7,202,210	6,860,988	6,824,474	6,881,455	7,184,975	7,561,947	5,224,724	5,926,808	3,466,641	2,955,170	4,443,149	4,247,733	4,524,851	4,116,480	3,443,762	2,809,726	2,975,971	2,425,389	1,986,870	1,952,685	2,217,622	5,880,000 a/
	Per cent	1.5	1.6	1.6	1.4	1.3	1.3	1.1	1.0	0.6	0.7	0.8	0.9	0.9	0.8	0.7	0.6	0.6	0.5	0.5	0.6	0.7	1.6
Kentucky	Tons	19,616,600	20,382,763	21,361,674	25,393,997	27,807,971	31,612,617	30,036,061	35,690,762	31,588,270	42,134,175	44,777,317	45,147,204	55,068,670	62,526,662	69,123,998	61,860,379	60,462,600	51,206,995	39,963,681	35,299,582	36,099,788	38,000,000
	Per cent	4.1	4.8	4.8	5.1	5.0	5.5	6.5	6.3	7.6	10.0	7.9	9.3	10.6	11.0	13.4	12.4	11.3	11.0	10.5	11.4	10.8	10.5
Maryland	Tons	4,779,839	4,133,547	4,180,477	4,460,046	4,745,924	4,497,297	3,021,686	4,065,239	1,827,740	1,222,707	2,285,926	2,133,703	2,694,572	3,078,353	2,414,842	2,686,979	2,649,114	2,270,393	2,005,773	1,428,937	1,530,748	1,440,000
	Per cent	1.0	1.0	0.9	0.9	0.9	0.8	0.6	0.7	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5
Michigan	Tons	1,231,786	1,283,030	1,156,134	1,180,360	1,374,805	1,464,818	996,545	1,489,765	1,141,715	929,990	1,172,075	831,020	806,233	646,707	736,763	617,342	804,869	661,133	359,403	346,149	346,568	631,000
	Per cent	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2
Missouri	Tons	4,318,325	3,935,980	3,811,593	4,742,146	5,670,549	5,667,730	3,979,798	5,369,565	3,551,621	2,924,750	3,403,151	2,480,880	2,694,215	3,008,495	3,064,343	3,732,421	4,030,311	3,853,150	3,620,497	4,069,594	3,432,882	b/
	Per cent	0.9	0.9	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.7	0.6	0.5	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.3	1.0	
Montana	Tons	3,240,973	2,805,173	2,789,755	3,632,527	4,226,689	4,532,505	3,236,369	4,413,866	2,733,958	2,572,221	3,147,678	2,905,365	3,043,686	2,797,760	3,143,638	3,328,195	3,407,526	3,022,004	2,378,052	2,125,285	2,352,207	2,600,000
	Per cent	0.7	0.7	0.6	0.7	0.8	0.8	0.7	0.8	0.9	0.6	0.6	0.6	0.6	0.5	0.6	0.7	0.6	0.7	0.6	0.7	0.6	0.7
New Mexico	Tons	3,708,806	3,877,689	3,817,940	3,793,011	4,000,527	4,023,239	3,138,756	3,683,440	2,953,482	3,147,173	2,915,173	2,786,063	2,556,851	2,817,923	2,935,539	2,711,851	2,622,769	1,969,433	1,552,822	1,263,385	1,226,236	1,250,000
	Per cent	0.8	0.9	0.9	0.8	0.7	0.7	0.7	0.6	0.6	0.7	0.5	0.6	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4
North Carolina	Tons	-	-	-	-	-	1,420	6,989	11,940	23,438	78,570	36,019	57,094	65,193	57,939	53,377	60,860	52,180	28,500	2,363	1,900	2,014	c/
	Per cent	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
North Dakota	Tons	495,320	506,685	528,078	634,912	790,548	719,733	840,959	948,625	864,903	1,327,564	1,385,400	1,200,527	1,328,620	1,370,244	1,527,939	1,649,930	1,862,130	1,700,157	1,519,307	1,739,658	1,782,272	1,830,000 d/
	Per cent	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.6	0.5	0.5
Ohio	Tons	36,200,527	18,843,115	22,434,691	34,728,219	40,748,734	45,812,943	35,876,682	45,878,191	31,942,776	26,953,791	40,546,443	30,473,007	28,034,112	27,872,488	15,799,697	15,641,225	23,689,477	22,951,978	20,410,999	13,909,451	19,588,763	20,842,000
	Per cent	7.6	4.5	5.1	6.9	7.4	7.9	7.7	8.1	7.7	6.4	7.2	6.3	5.4	4.9	3.1	3.1	4.4	4.8	5.1	4.5	5.9	5.8
Oklahoma	Tons	4,165,770	3,988,613	3,693,580	3,606,011	4,386,844	4,813,447	3,802,113	4,869,288	3,362,623	2,802,511	2,885,038	2,328,615	2,325,840	2,842,673	3,018,054	3,901,325	3,774,080	2,793,954	1,908,394	1,295,466	1,238,248	e/
	Per cent	0.9	1.0	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.5	0.5	0.4	0.5	0.6	0.7	0.7	0.6	0.5	0.4	0.4	
Pennsylvania	Tons	173,781,217	147,983,294	157,955,137	170,295,424	172,448,142	178,550,741	150,758,154	170,607,847	116,013,942	113,148,308	171,879,913	130,633,773	136,928,019	153,041,638	132,964,639	131,202,163	143,516,241	128,462,787	97,658,698	74,775,852	79,295,944	89,223,000
	Per cent	36.3	35.0	35.7	33.9	31.3	30.8	32.4	30.0	27.9	26.8	30.5	27.0	26.3	26.7	25.7	26.2	26.8	26.6	25.6	24.2	23.8	25.9
Tennessee	Tons	6,860,184	5,943,258	5,730,361	6,137,449	6,194,221	6,831,048	5,213,205	6,662,428	4,460,326	4,876,774	6,040,268	4,556,595	5,454,011	5,788,741	5,783,367	5,610,959	5,405,464	5,130,428	4,721,548	3,537,882	3,774,743	4,095,000
	Per cent	1.4	1.4	1.3	1.2	1.1	1.2	1.1	1.2	1.1	1.2	1.1	1.0	1.1	1.0	1.1	1.1	1.0	1.1	1.2	1.1	1.1	1.1
Texas	Tons	2,429,144	2,329,773	2,088,908	1,987,903	2,355,815	2,261,135	1,680,656	1,615,015	972,839	1,106,007	1,187,329	1,187,011	1,008,775	1,091,158	1,326,385	1,182,034	1,100,668	853,872	716,020	636,390	821,878	715,000
	Per cent	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Utah	Tons	3,254,828	3,103,036	3,106,715	3,567,428	4,125,230	5,136,825	4,631,323	6,005,199	4,078,784	4,992,008	4,720,217	4,488,157	4,690,342	4,373,793	4,781,480	4,842,544	5,160,521	4,257,591	3,350,044	2,852,127	2,674,986	2,818,000
	Per cent	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.2	0.8	0.9	0.9	0.8	0.9	1.0	1.0	0.9	0.9	0.9	0.8	0.7
Virginia	Tons	8,828,068	7,959,535	8,122,596	9,707,474	10,087,091	10,289,808	9,326,830	11,378,606	7,492,378	10,491,174	11,761,643	10,693,464	12,799,443	14,133,386	12,916,062	11,900,933	12,748,206	10,907,577	9,698,680	7,692,180	8,178,642	9,100,000
	Per cent	1.8	1.9	1.8	1.9	1.8	1.8	2.0	2.0	1.8	2.5	2.1	2.2	2.5	2.5	2.5	2.4	2.4	2.3	2.5	2.5	2.5	2.5
Washington	Tons	3,877,891	3,064,820	2,429,095	3,038,588	4,009,902	4,082,212	2,990,447	3,757,093	2,428,722	2,581,165	2,926,392	2,653,667	2,537,894	2,586,968	2,635,062	2,519,901	2,521,327	2,301,928	1,846,461	1,591,426	1,358,068	1,387,000
	Per cent	0.8	0.7	0.6	0.6	0.7	0.7	0.6	0.7	0.6	0.6	0.5	0.6	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4
West Virginia	Tons	71,854,136	71,707,626	77,184,069	86,460,127	86,441,667	89,935,839	79,036,553	89,970,707	72,786,996	80,488,192	107,899,941	101,662,897	122,380,959	143,509,380	146,122,447	132,952,195	138,518,855	121,472,638	101,473,172	85,606,735	94,343,535	98,190,000
	Per cent	14.9	17.0	17.4	17.2	15.7	15.5	17.0	15.8	17.5	19.1	19.1	21.0	23.5	25.0	26.0	26.6	25.9	26.0	26.6	27.7	28.3	27.4
Wyoming	Tons	7,393,066	6,475,293	6,554,028	7,910,647	8,575,619	9,438,688	7,219,738	9,630,271	7,200,666	5,971,724	7,575,031	6,757,866	6,553,332	6,512,288	6,753,696	6,571,683	6,704,730	6,088,133	4,993,686	4,170,963	4,033,167	4,399,000
	Per cent	1.5	1.5	1.5	1.6	1.6	1.6	1.5	1.7	1.7	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.3	1.3	1.4	1.2	1.2
Other States g/	Tons	55,691	77,382	63,727	73,791	96,747	103,276	100,383	97,358	123,215	113,320	150,271	128,699	139,940	121,060	149,231	157,517	133,916	160,532	157,890	174,970	173,679	130,000
	Per cent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total		478,435,297	422,703,970	442,624,426	502,513,682	551,790,563	579,385,420	465,860,058	568,666,683	415,921,950	422,268,999	564,364,662	483,686,538	520,052,741	573,366,985	517,763,352	500,744,970	534,988,593	467,526,299	382,088,396	309,709,872	333,630,533	358,395,000

SOURCES: U. S. Bureau of Mines.

a/ Includes Missouri.
b/ Included with Kansas.
c/ Includes Alaska, Arizona, California, Georgia, Idaho, Nevada, North Carolina, Oregon, and South Dakota, but not all of these states in every year.
d/ Includes North Dakota and South Dakota.
e/ Includes Oklahoma.
f/ Includes North Carolina.
g/ Included with Georgia.
h/ Included with Arkansas.

Prepared by Bituminous Coal Unit
Division of Review, W.P.A.
Under Direction of F. E. Berquist

Labor Cost Per Ton May 1933, compared with Labor Cost Per Ton 10 Months April 1934 through January 1935. Realization Per Ton January through September 1933 compared with Realization Per Ton - April 1934 through January 1935.

DIVISION AND SUB-DIVISION	LABOR COST		REALIZATION		INCREASE DUE TO CODE				LABOR COST		REALIZATION		INCREASE DUE TO AMENDMENT NO. 1				AVERAGE INCREASE UNDER CODE			
	May 1933 Pre-Code	Dec. 1933	Jan-Sept '33 Pre-Code	Oct-Dec '33	Labor Costs Dec. over May 1933		Realization Oct-Dec. over Jan-Sept '33		Nov. 1933 through Mar. 1934	10 Months Apr '34 thru Jan. 1935	Nov. 1933 through Mar. 1934	10 Months Apr '34 thru Jan. 1935	Labor Costs 10 Months-Apr. '34 - Jan. '35 over 5 Months Nov. '33-Mar. '34		Realization 10 Months-Apr. '34 - Jan. '35 over 5 Months-Nov. '33-Mar. '34		Labor Cost 10 Months Apr. '34 - Jan. '35 over May '33		Realization 10 Months Apr. '34 - January '35 over Jan.-Sept. 1933	
	Per Ton 1	Per Ton 2	Per Ton 3	Per Ton 4	Per Ton 5	% Increase 6	Per Ton 7	% Increase 8	Per Ton 9	Per Ton 10	Per Ton 11	Per Ton 12	Per Ton 13	% Increase 14	Per Ton 15	% Increase 16	Per Ton 17	% Increase 18	Per Ton 19	% Increase 20
DIVISION I																				
Eastern Pa.	.810	1.074	1.230	1.700	.264	32.6	.470	38.2	1.066	1.295	1.719	2.057	.229	21.5	.338	19.7	.485	59.9	.827	67.2
Western Pa.	.626	1.005	1.120	1.650	.379	60.5	.530	47.3	.990	1.190	1.668	1.909	.200	20.2	.241	14.4	.564	90.1	.789	70.4
Ohio	.654	.959	1.010	1.660	.305	46.6	.650	64.4	.953	1.152	1.679	1.858	.199	20.9	.179	10.7	.498	76.1	.848	84.0
Michigan	—	1.618	2.820	2.960	—	—	.140	5.0	1.570	1.931	2.921	3.163	.361	23.0	.242	8.3	—	—	.343	12.2
Panhandle	—	.971	1.000	1.550	—	—	.550	55.0	.982	1.128	1.567	1.754	.146	14.9	.187	11.9	—	—	.754	75.4
No.W. Va.	.483	.776	.780	1.310	.293	60.7	.530	67.9	.775	.986	1.332	1.621	.221	28.5	.289	21.7	.513	106.2	.841	107.8
TOTAL DIV. I NORTH	2/	.981	1.080	1.610	—	—	.530	49.1	.974	1.186	1.634	1.900	.212	21.8	.266	16.3	—	—	.820	75.9
Southern No.1	—	.960	1.020	1.700	—	—	.680	66.7	.943	1.146	1.739	2.037	.203	21.5	.298	17.1	—	—	1.017	99.7
Southern No.2	.563	.891	.980	1.540	.328	58.3	.560	57.1	.876	1.088	1.568	1.845	.212	24.2	.277	17.7	.525	93.3	.865	88.3
Md and Upper Potomac	.708	1.142	1.230	1.760	.434	61.3	.530	43.1	1.121	1.321	1.773	2.108	.200	17.8	.335	18.9	.613	86.6	.878	71.4
Western Kentucky	—	.708	.750	1.180	—	—	.430	57.3	2/	—	2/	—	—	—	—	—	—	—	—	—
TOTAL DIV. I SOUTH	2/	.911	.980	1.580	—	—	.600	61.2	.910	1.119	1.644	1.938	.209	23.0	.294	17.9	—	—	.958	97.8
TOTAL DIV. I	2/	.947	1.030	1.600	—	—	.570	55.3	.943	1.152	1.639	1.919	.209	22.2	.280	17.1	—	—	.889	86.3
DIVISION II (Deep & Strip)																				
Illinois	—	.791	1.360	1.520	—	—	.160	11.8	.775	.866	1.534	1.640	.091	11.7	.106	6.9	—	—	.280	20.6
Indiana	—	.613	1.180	1.440	—	—	.260	22.0	.605	.719	1.442	1.599	.114	18.8	.157	10.9	—	—	.419	35.5
Iowa	—	1.447	2.270	2.340	—	—	.070	3.1	2/	—	2/	—	—	—	—	—	—	—	—	—
TOTAL DIVISION II	—	.777	1.360	1.540	—	—	.180	13.2	.730	.829	1.509	1.629	.099	13.6	.120	8.0	—	—	4/ .269	4/ 19.8
DIVISION III																				
Alabama	.677	1.112	1.480	1.870	.435	64.3	.390	26.4	1.109	3/ 1.441	1.923	3/ 2.287	.302	27.2	.364	18.9	.734	108.4	.807	54.5
TOTAL DIVISION III	.747	1.130	1.490	1.850	.383	51.3	.360	24.2	1.122	3/ 1.413	1.910	3/ 2.254	.291	25.9	.344	18.0	.666	89.2	.764	51.3

1/ Does not include March, 1934

2/ Incomplete data.

3/ Data for period April 1934 through December 1934 only.

4/ Averages for Total Division II are not mathematically correct because Iowa was included in 1933 data, but was not available for 1934.

SOURCES:
U.S. Bureau of Mines.
N.B.A.- Bituminous Coal Statistics.

PREPARED BY:
Bituminous Coal Unit, Division of Review,
N.R.A., under the direction of F.H. Bergquist.

Ratio of Commercial Production in Subdivisions of Divisions I and II to Total of these Divisions, 1933 and 1934: and Average Total Cost, Realization and Margins during the 10 Months Period April 1934 through January 1935.

1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16
Commercial Production		% of Div. I & II Total		N.R.A.	10 Months Period — April 1934 through January 1935.							N.R.A. Monthly Reports —				
												COST		REALIZATION		MARGIN
1933 1/ (000)	1934 1/ (000)	1933	1934	Subdivisions	10 MONTHS' COMMERCIAL TONNAGE (ESTIMATED) (000)	N.R.A. 10 MONTHS' REPORTED TONNAGE (000)	% NRA REPORTED TONNAGE IS OF COMMERCIAL TONNAGE (COL 6 ÷ COL 5)	% NRA OF TOTAL 10 MONTHS' TONNAGE (INC. CAPTIVE)	AVERAGE TOTAL COST	AVERAGE MINE REALIZATION	MARGIN COLUMN (10) MINUS COLUMN (9)	May 1934	Jan. 1935	May 1934	Jan. 1935	May 1934	Ja
31072	32745	11.9	11.7	EASTERN SUB-DIV.	26111	20249	77.5	67.0	$2.12	$2.06	$-0.06	$2.12	$2.02	$2.00	$2.09	$-0.12	
17003	16847	6.5	6.0	NO. W. VIRGINIA	12953	10468	80.8	71.0	1.67	1.62	- 0.05	1.59	1.61	1.57	1.65	- 0.02	
16888	18201	6.4	6.5	OHIO	14214	9695	68.2	60.0	1.80	1.86	+ 0.06	1.79	1.76	1.80	1.91	- 0.01	
3484	3370	1.3	1.2	PANHANDLE of W. VA.	2690	1966	73.1	62.0	1.73	1.76	+ 0.03	1.82	1.75	1.76	1.75	- 0.06	
40286	42672	15.4	15.3	SOUTHERN NO. 1	33699	32294	95.9	90.0	1.94	2.04	+ 0.10	1.90	1.89	1.95	2.11	+ 0.05	
61750	65701	23.6	23.5	SOUTHERN NO. 2	54111	36836	68.1	62.0	1.82	1.84	+ 0.02	1.76	1.81	1.76	1.91	- 0.03	
33044	36894	12.6	13.2	WESTERN PA.	20087	24454	87.9	60.0	1.94	1.91	- 0.03	1.91	1.90	1.88	1.92	- 0.03	
407	631	0.1	0.2	MICHIGAN	478	347	72.6	73.0	3.18	3.16	- 0.02	3.57	3.00	2.91	3.28	- 0.66	
7834	7893	3.0	2.8	WESTERN KENTUCKY 2/	—	—	—	—	—	—	—	—	—	—	—	—	
211768	224954	80.8	80.4	DIVISION I	174333	138309	78.7	68.0	1.91	1.92	+ 0.01	1.87	1.87	1.85	1.98	- 0.02	
33698	36843	12.9	13.2	ILLINOIS	29699	24262	88.4	79.0	1.55	1.64	+ 0.09	1.65	1.62	1.55	1.70	- 0.19	
13574	14618	5.2	5.3	INDIANA	11725	8893	75.8	75.0	1.52	1.60	+ 0.08	1.64	1.56	1.53	1.63	- 0.11	
2844	2977	1.1	1.1	IOWA 2/	—	—	—	—	—	—	—	—	—	—	—	—	
50116	54438	19.2	19.6	DIVISION II 3/ 4/	41424	35155	84.9	78.0	1.54	1.63	+ 0.09	1.65	1.64	1.55	1.69	- 0.10	
261884	279392	100.00	100.00	DIVISIONS I & II	215757	173464	79.9	70.0	5/ 1.83	5/ 1.86	+ 0.03	1.84	1.75	1.80	1.90	- 0.04	

1/ From U. S. Bureau of Mines. The tonnage shown in each case represents the total tons produced minus the production of the "100% Captive" mines.

2/ Cost and realization in November and December 1933, for West Kentucky was 15 and 31 cents less respectively than average of Illinois and Indiana. Iowa in same period was 79 and 86 cents more.

3/ Totals do not include West Kentucky nor Iowa, except where shown in columns.

4/ Strip mines included in Division II.

5/ Adjusting for entire coal year 1934-35 by using January realization and ten months' cost for February and March, 1935, and correcting for West Kentucky and Iowa on above basis, the average cost of Divisions I and II becomes $1.84 and the average realization $1.87.

...Production, Realization and Margins during the 10 Months Period April 1934 through January 1935.

1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	17
Commercial Production		% of Div. I & II Total		N.R.A. Subdivisions	10 Months Period — April 1934 through January 1935							N.R.A. Monthly Reports —					
1933 1/ (000)	1934 1/ (000)	1933	1934		10 MONTHS' COMMERCIAL TONNAGE (ESTIMATED) (000)	N.R.A. 10 MONTHS' REPORTED TONNAGE (000)	% NRA REPORTED TONNAGE IS OF COMMERCIAL TONNAGE (COL.6 ÷ COL.5)	% NRA OF TOTAL 10 MONTHS' TONNAGE (INC. CAPTIVE)	AVERAGE TOTAL COST	AVERAGE MINE REALIZATION	MARGIN COLUMN (10) MINUS COLUMN (9)	COST		REALIZATION		MARGIN	
												May 1934	Jan. 1935	May 1934	Jan. 1935	May 1934	Jan. 1935
31072	32745	11.9	11.7	EASTERN SUB-DIV.	26111	20249	77.5	67.0	$2.12	$2.06	-$0.06	$2.12	$2.02	$2.00	$2.09	-$0.12	+$0
17003	16847	6.5	6.0	NO. W. VIRGINIA	12953	10468	80.8	71.0	1.67	1.62	- 0.05	1.59	1.61	1.57	1.65	- 0.02	+ 0
16888	18201	6.4	6.5	OHIO	1421	9695	68.2	60.0	1.80	1.86	+ 0.06	1.79	1.7	1.80	1.91	- 0.01	+ 0
3484	3370	1.3	1.2	PANHANDLE of W. VA.	2690	1966	73.1	62.0	1.73	1.76	+ 0.03	1.82	1.75	1.76	1.75	- 0.06	—
40286	42672	15.4	15.3	SOUTHERN NO.1	33689	32294	95.9	90.0	1.94	2.04	+ 0.10	1.90	1.84	1.95	2.11	+ 0.05	+ 0
61750	65701	23.6	23.5	SOUTHERN NO.2	54111	36836	68.1	62.0	1.82	1.84	+ 0.02	1.74	1.81	1.76	1.91	- 0.03	+ 0
33044	36894	12.6	13.2	WESTERN PA.	30087	24454	87.9	60.0	1.94	1.91	- 0.03	1.91	1.90	1.88	1.92	- 0.03	+ 0
407	631	0.1	0.2	MICHIGAN	478	347	72.6	73.0	3.18	3.16	- 0.02	3.57	3.04	2.91	3.28	- 0.66	+ 0
7834	7893	3.0	2.8	WESTERN KENTUCKY 3/	—	—	—	—	—	—	—	—	—	—	—	—	—
211768	224954	80.8	80.4	DIVISION I	174333	138309	78.7	68.0	1.91	1.92	+ 0.01	1.87	1.87	1.85	1.98	- 0.02	+ 0
33698	36843	12.9	13.2	ILLINOIS	29699	24262	88.4	79.0	1.55	1.64	+ 0.09	1.65	1.66	1.55	1.70	- 0.10	+ 0
13574	14618	5.2	5.3	INDIANA	11725	8893	75.8	75.0	1.52	1.60	+ 0.08	1.64	1.56	1.53	1.63	- 0.11	+ 0
2844	2977	1.1	1.1	IOWA 2/	—	—	—	—	—	—	—	—	—	—	—	—	—
50116	54438	19.2	19.6	DIVISION II 3/ 4/	41424	35155	84.9	78.0	1.54	1.63	+ 0.09	1.65	1.64	1.55	1.69	- 0.10	+ 0
261884	279392	100.00	100.00	DIVISIONS I & II	215757	173464	79.9	70.0	5/ 1.83	5/ 1.86	+ 0.03	1.84	1.75	1.80	1.90	- 0.04	+ 0

1/ From U. S. Bureau of Mines. The tonnage shown in each case represents the total tons produced minus the production of the "100% Captive" mines.

2/ Cost and realization in November and December 1933, for West Kentucky was 15 and 31 cents less respectively than average of Illinois and Indiana. Iowa in same period was 79 and 86 cents more.

3/ Totals do not include West Kentucky nor Iowa, except where shown in columns.

4/ Strip mines included in Division II.

5/ Adjusting for entire coal year 1934-35 by using January realization and ten months' cost for February and March, 1935, and correcting for West Kentucky and Iowa on above basis, the average cost of Divisions I and II becomes $1.84 and the average realization $1.87.

SOURCE:

For columns 1, 2 & 5, U. S. Bureau of Mines.
For columns 6, 9 to 17, N.R.A. Bituminous Coal Statistics.

Prepared by Bituminous Coal Unit
Division of Review, N.R.A.
Under direction of F. E. Berquist

D.Ex. 37a

Ratio of Commercial Production in Subdivisions of Divisions I and II to Total of these Divisions, 1933 and 1934: and Average Total Cost, Realization and Margins during the 10 Months Period April 1934 through January 1935.

2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	17
al Production	% of Div. I & II Total		N.R.A.	10 Months Period — April 1934 through January 1935							N.R.A. Monthly Reports —					
1934 1/ (000)	1933	1934	Subdivisions	10 MONTHS' COMMERCIAL TONNAGE (ESTIMATED) (000)	N.R.A. 10 MONTHS' REPORTED TONNAGE (000)	% N.R.A. REPORTED TONNAGE IS OF COMMERCIAL TONNAGE (COL.6 ÷ COL.5)	% N.R.A. OF TOTAL 10 MONTHS' TONNAGE (INC. CAPTIVE)	AVERAGE TOTAL COST	AVERAGE MINE REALIZATION	MARGIN COLUMN (10) MINUS COLUMN (9)	COST		REALIZATION		MARGIN	
											May 1934	Jan. 1935	May 1934	Jan. 1935	May 1934	Jan. 1935
32745	11.9	11.7	EASTERN SUB-DIV.	26111	20249	77.5	67.0	$2.12	$2.06	-$0.06	$2.12	$2.02	$2.00	$2.09	-$0.12	+$0.07
16847	6.5	6.0	NO. W. VIRGINIA	12953	10468	80.8	71.0	1.67	1.62	- 0.05	1.59	1.61	1.57	1.65	- 0.02	+ 0.04
18201	6.4	6.5	OHIO	14214	9695	68.2	60.0	1.80	1.86	+ 0.06	1.79	1.74	1.80	1.91	- 0.01	+ 0.15
3370	1.3	1.2	PANHANDLE of W. VA.	2690	1966	73.1	62.0	1.73	1.76	+ 0.03	1.82	1.75	1.76	1.75	- 0.06	—
42672	15.4	15.3	SOUTHERN NO.1	33689	32294	95.9	90.0	1.94	2.04	+ 0.10	1.90	1.89	1.95	2.11	+ 0.05	+ 0.22
65701	23.6	23.5	SOUTHERN NO.2	54111	36836	68.1	62.0	1.82	1.84	+ 0.02	1.74	1.81	1.76	1.91	- 0.03	+ 0.10
36894	12.6	13.2	WESTERN PA.	30087	26454	87.9	60.0	1.94	1.91	- 0.03	1.91	1.90	1.88	1.92	- 0.03	+ 0.02
631	0.1	0.2	MICHIGAN	478	347	72.6	73.0	3.18	3.16	- 0.02	3.57	3.04	2.91	3.28	- 0.66	+ 0.24
7893	3.0	2.8	WESTERN KENTUCKY 2/	—	—	—	—	—	—	—	—	—	—	—	—	—
224954	80.8	80.4	DIVISION I	174333	138309	78.7	68.0	1.91	1.92	+ 0.01	1.87	1.87	1.85	1.98	- 0.02	+ 0.11
36843	12.9	13.2	ILLINOIS	29699	26262	88.4	79.0	1.55	1.64	+ 0.09	1.65	1.46	1.55	1.70	- 0.10	+ 0.24
14618	5.2	5.3	INDIANA	11725	8893	75.8	75.0	1.52	1.60	+ 0.08	1.64	1.36	1.53	1.63	- 0.11	+ 0.27
2977	1.1	1.1	IOWA 2/	—	—	—	—	—	—	←	—	—	—	—	—	—
54438	19.2	19.6	DIVISION II 3/ 4/	41424	35155	84.9	78.0	1.54	1.63	+ 0.09	1.65	1.44	1.55	1.69	- 0.10	+ 0.25
279392	100.00	100.00	DIVISIONS I & II	215757	173464	79.9	70.0	5/ 1.83	5/ 1.86	+ 0.03	1.84	1.75	1.80	1.90	- 0.04	+ 0.15

1/ From U. S. Bureau of Mines. The tonnage shown in each case represents the total tons produced minus the production of the "100% Captive" mines.

2/ Cost and realization in November and December 1933, for West Kentucky was 15 and 31 cents less respectively than average of Illinois and Indiana. Iowa in same period was 79 and 86 cents more.

3/ Totals do not include West Kentucky nor Iowa, except where shown in columns.

4/ Strip mines included in Division II.

5/ Adjusting for entire coal year 1934-35 by using January realization and ten months' cost for February and March, 1935, and correcting for West Kentucky and Iowa on above basis, the average cost of Divisions I and II becomes $1.84 and the average realization $1.87.

10 Months Period April 1934 through January 1935.

2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	17
Production	% of Div. I & II Total		N.R.A.	10 Months Period — April 1934 through January 1935							N.R.A. Monthly Reports —					
											COST		REALIZATION		MARGIN	
1934 1/ (000)	1933	1934	Subdivisions	10 MONTHS' COMMERCIAL TONNAGE (ESTIMATED) (000) 1/	N.R.A. 10 MONTHS' REPORTED TONNAGE (000)	% N.R.A. REPORTED TONNAGE IS OF COMMERCIAL TONNAGE (COL. 6 ÷ COL. 5)	% N.R.A. OF TOTAL 10 MONTHS' TONNAGE (INC. CAPTIVE)	AVERAGE TOTAL COST	AVERAGE MINE REALIZATION	MARGIN COLUMN (10) MINUS COLUMN (9)	May 1934	Jan. 1935	May 1934	Jan. 1935	May 1934	Jan. 1935
32745	11.9	11.7	EASTERN SUB-DIV.	26111	20249	77.5	67.0	$2.12	$2.06	-$0.06	$2.12	$2.02	$2.00	$2.09	-$0.12	+$0.07
16847	6.5	6.0	NO. W. VIRGINIA	12953	10468	80.8	71.0	1.67	1.62	- 0.05	1.59	1.61	1.57	1.65	- 0.02	+ 0.04
18201	6.4	6.5	OHIO	14214	9695	68.2	60.0	1.80	1.86	+ 0.06	1.79	1.74	1.80	1.91	- 0.01	+ 0.15
3370	1.3	1.2	PANHANDLE of W. VA.	2690	1966	73.1	62.0	1.73	1.76	+ 0.03	1.82	1.75	1.76	1.75	- 0.06	———
42672	15.4	15.3	SOUTHERN NO. 1	33689	32294	95.9	90.0	1.94	2.04	+ 0.10	1.90	1.89	1.95	2.11	+ 0.05	+ 0.22
65701	23.6	23.5	SOUTHERN NO. 2	54111	36836	68.1	62.0	1.82	1.84	+ 0.02	1.74	1.81	1.76	1.91	- 0.03	+ 0.10
36894	12.6	13.2	WESTERN PA.	30087	26454	87.9	60.0	1.94	1.91	- 0.03	1.91	1.90	1.88	1.92	- 0.03	+ 0.02
631	0.1	0.2	MICHIGAN	478	347	72.6	73.0	3.18	3.16	- 0.02	3.57	3.04	2.91	3.28	- 0.66	+ 0.24
7893	-3.0	2.8	WESTERN KENTUCKY 2/	—	—	—	—	—	—	—	—	—	—	—	—	—
224954	80.8	80.4	DIVISION I	174333	138309	78.7	68.0	1.91	1.92	+ 0.01	1.87	1.87	1.85	1.98	- 0.02	+ 0.11
36843	12.9	13.2	ILLINOIS	29699	26262	88.4	79.0	1.55	1.64	+ 0.09	1.65	1.46	1.55	1.70	- 0.10	+ 0.24
14618	5.2	5.3	INDIANA	11725	8893	75.8	75.0	1.52	1.60	+ 0.08	1.64	1.36	1.53	1.63	- 0.11	+ 0.27
2977	1.1	1.1	IOWA 2/	—	—	—	—	—	—	—	—	—	—	—	—	—
54438	19.2	19.6	DIVISION II 3/ 4/	41424	35155	84.9	78.0	1.54	1.63	+ 0.09	1.65	1.44	1.55	1.69	- 0.10	+ 0.25
279392	100.00	100.00	DIVISIONS I & II	215757	173464	79.9	70.0	5/ 1.83	5/ 1.86	+ 0.03	1.84	1.75	1.80	1.90	- 0.04	+ 0.15

1/ From U. S. Bureau of Mines. The tonnage shown in each case represents the total tons produced minus the production of the "100% Captive" mines.

2/ Cost and realization in November and December 1933, for West Kentucky was 15 and 31 cents less respectively than average of Illinois and Indiana. Iowa in same period was 79 and 86 cents more.

3/ Totals do not include West Kentucky nor Iowa, except where shown in columns.

4/ Strip mines included in Division II.

5/ Adjusting for entire coal year 1934-35 by using January realization and ten months' cost for February and March, 1935, and correcting for West Kentucky and Iowa on above basis, the average cost of Divisions I and II becomes $1.84 and the average realization $1.87.

SOURCE:

For columns 1, 2 & 5, U. S. Bureau of Mines.
For columns 6, 9 to 17, N.R.A. Bituminous Coal Statistics.

Prepared by Bituminous Coal Unit
Division of Review, N.R.A.
Under direction of F. E. Berquist

Defendant's Ex.38

RATIO OF WAGES PAID TO VALUE OF PRODUCTS IN MAJOR INDUSTRIES, IN 1929 1/

(Manufacturing industries listed include all individual industries paying more than $50,000,000 in wages in 1929. Mining and quarrying industries listed include all individual industries paying more than $25,000,000 in wages in 1929.)

Industry	Wages	Value of Products 2/	Percent of wages to value
MINING			
Bituminous coal	$ 574,800,072	$ 966,693,771	59.5
Anthracite coal	229,967,059	384,854,300	59.8
Iron ore	40,905,190	197,334,548	20.7
Copper	73,199,785	283,517,373	25.8
Limestone	39,188,364	117,257,784	33.4
Petroleum and natural gas 3/	167,989,615	931,793,423	18.0
MANUFACTURING			
Agricultural implements	58,941,939	277,854,462	21.2
Boots and shoes, other than rubber	222,407,732	965,922,694	23.0
Boxes, paper, not elsewhere classified	57,109,700	294,253,296	19.4
Bread and other bakery products	274,561,581	1,526,110,811	18.0
Canning and preserving: Fruits and vegetables; pickles, jellies, preserves, and sauces.	74,978,590	750,342,041	10.0
Car and general construction and repairs, steam railroad repair shops.	590,202,724	1,184,435,262	49.8
Cars, electric and steam railroad, not built in railroad repair shops	63,367,382	328,220,204	19.3
Chemicals, not elsewhere classified	94,680,013	738,048,386	12.8
Cigars and cigarettes	85,623,298	1,066,908,888	8.0
Clay products (other than pottery) and nonclay refractories	106,918,327	294,934,513	36.3
Clothing (except work clothing) men's youths and boys', not elsewhere classified	179,768,808	901,104,205	19.9
Clothing, womens', not elsewhere classified	243,361,143	1,709,580,505	14.3
Confectionery	56,[illegible]42,674	393,269,[illegible]	14.4
Cotton goods	324,289,034	1,524,177,087	21.3
Dyeing and finishing textiles	94,244,685	465,820,629	20.2
Electrical machinery, apparatus, and supplies	456,377,629	2,300,915,572	19.8
Engines, turbines, tractors, water wheels.	98,705,080	457,217,669	21.6
Foundry and machine-shop products, not elsewhere classified.	697,508,589	2,731,461,964	25.0
Furniture, including store and office fixtures	242,832,096	948,116,398	25.6
Gas, manufactured, illuminating and heating	60,460,926	512,652,595	11.7
Glass	87,795,111	303,618,560	28.9
Hardware not elsewhere classified	67,702,255	289,477,507	23.5
Iron and steel: Steel works and rolling mills	689,015,541	3,365,788,805	20.5
Knit goods	210,714,335	899,716,678	23.4
Leather: Tanned, curried, and finished	63,413,707	481,390,899	13.2
Lumber and timber products, not elsewhere classified	421,584,674	1,273,472,350	33.1
Machine-tool accessories and small metal-cutting tools, not elsewhere classified	51,084,540	144,410,890	35.4
Machine tools	76,410,237	244,578,086	31.2
Marble, granite, slate, and other stone products	63,040,864	192,163,916	32.8
Meat packing, wholesale	165,867,428	3,438,654,098	4.8
Motor-vehicle bodies and motor-vehicle parts.	366,503,385	1,537,929,793	23.8
Motor vehicles, not including motor-cycles	366,579,233	3,722,793,274	9.8
Nonferrous metal alloys and products, not including aluminum products	116,943,996	909,884,098	12.9
Paper	140,398,378	967,185,026	14.5
Petroleum refining	131,176,993	2,639,669,002	5.0
Planing-mill products (including general mill work) not made in planing mills connected with	116,[illegible]62,663	751,[illegible]3,[illegible]	15.6

repairs, steam railroad repair shops.	250,202,724	[illegible]	[illegible]
Cars, electric and steam railroad, not built in railroad repair shops	63,387,382	328,220,204	19.3
Chemicals, not elsewhere classified	94,680,013	738,048,386	12.8
Cigars and cigarettes	85,623,298	1,066,908,888	8.0
Clay products (other than pottery) and nonclay refractories	106,918,327	294,934,513	36.3
Clothing (except work clothing) men's youths and boys', not elsewhere classified	179,768,808	901,104,205	19.9
Clothing, womens', not elsewhere classified	243,351,143	1,709,580,505	14.3
Confectionery	56,042,674	393,269,849	14.4
Cotton goods	324,289,034	1,524,177,087	21.3
Dyeing and finishing textiles	94,294,685	465,820,629	20.2
Electrical machinery, apparatus, and supplies	456,377,629	2,300,915,572	19.8
Engines, turbines, tractors, water wheels.	98,705,080	457,217,669	21.6
Foundry and machine-shop products, not elsewhere classified	697,508,589	2,791,461,964	25.0
Furniture, including store and office fixtures	242,832,096	948,116,358	25.6
Gas, manufactured, illuminating and heating	60,160,926	512,652,595	11.7
Glass	87,795,111	303,818,560	28.9
Hardware not elsewhere classified	67,702,255	289,477,507	23.5
Iron and steel: Steel works and rolling mills	689,015,541	3,365,788,805	20.5
Knit goods	210,714,335	899,716,672	23.4
Leather: Tanned, curried, and finished	63,413,707	481,340,899	13.2
Lumber and timber products, not elsewhere classified	421,584,674	1,273,472,320	33.1
Machine-tool accessories and small metal-cutting tools, not elsewhere classified	51,084,540	144,410,890	35.4
Machine tools	76,410,237	244,578,088	31.2
Marble, granite, slate, and other stone products	63,040,864	192,163,916	32.8
Meat packing, wholesale	165,867,428	3,438,654,098	4.8
Motor-vehicle bodies and motor-vehicle parts.	366,503,385	1,537,929,793	23.8
Motor vehicles, not including motor-cycles	366,579,233	3,788,793,274	9.8
Nonferrous metal alloys and products, not including aluminum products	116,943,996	909,804,098	12.9
Paper	140,398,378	967,186,085	14.5
Petroleum refining	131,176,993	2,639,665,801	5.0
Planing-mill products (including general mill work) not made in planing-mills connected with saw mills	116,422,664	553,983,498	21.0
Printing and publishing, book and job	251,576,692	1,006,656,768	25.0
Printing and publishing, newspaper and periodical	253,399,075	1,738,298,892	14.6
Rubber goods, other than tires, inner tubes, and boots and shoes	50,278,617	244,745,737	20.5
Rubber tires and inner tubes	127,883,975	770,176,890	16.5
Ship and boat building, steel and wooden, including repair work	88,278,153	231,380,165	38.2
Silk and rayon manufactures	137,547,146	738,280,238	18.8
Stamped ware, enameled ware, and metal stamping, enameling and japanning, and lacquering	50,091,700	[illegible]	24.5
Steam fittings and steam and hot-water heating apparatus	58,974,874	228,380,254	25.8
Stoves and ranges (other than electric) and warm-air furnaces	65,146,509	271,747,809	24.0
Structural and ornamental iron and steel work, not made in plants, operated in connection with rolling mills	87,785,616	477,836,827	18.4
Woolen goods	66,013,589	290,938,948	22.7
Worsted goods	98,137,738	536,067,389	18.3

1/ Sources: U. S. Census of Mines and Quarries, 1929- page 13
U. S. Census of Manufactures, 1929, Volume 1, pages 21 to 34.

2/ The value of products includes any profits and capital charges as well as cost of production.

3/ Figures for petroleum and natural gas are for 1919. U. S. Census of Mines and quarries, 1919, page 40.

By F. G. Tryon and V. M. Young,
Coal Economics Division,
U. S. Bureau of Mines,
November 11, 1935.

Defendant's Exhibit No. 39

DECLARATION OF PRINCIPLES

AND

AGREEMENT

By and Between

The Rocky Mountain Fuel Company

and the

United Mine Workers of America

District No. 15

For Period Beginning September 1, 1932
and Ending August 31, 1934

THE WAHLGREEN PEERLESS PRESS, DENVER

DECLARATION OF PRINCIPLES

We, the signers of this document, seeking a new era in the industrial relations of Colorado, unite in welcoming this opportunity to record the spirit and principles of this agreement.

Our purposes are:

To promote and establish industrial justice;

To substitute reason for violence, confidence for misunderstanding, integrity and good faith for dishonest practices, and a union of effort for the chaos of the present economic warfare;

To avoid needless and wasteful strikes and lockouts through the investigation and correction of their underlying causes;

To establish genuine collective bargaining between mine workers and operators through free and independent organization;

To stabilize employment, production, and markets through cooperative endeavor and the aid of science, recognizing the principle that increased productivity should be mutually shared through the application of equitable considerations to the rights of workers and to economic conditions affecting the operations and business of the company.

To assure mine workers and operators continuing mutual benefits and consumers a dependable supply of coal at reasonable and uniform prices;

To defend our joint undertaking against every conspiracy or vicious practice which seeks to destroy it; and in all other respects to enlist public confidence and support by safeguarding the public interest.

COMPARISON OF ACCIDENT RATES IN BITUMINOUS COAL MINING AND OTHER INDUSTRIES IN 1930

Industry	Number of establishments	Man-hours worked (thousands)	Accident rates	
			Frequency rate per million man-hours a/	Severity rate per thousand man-hours b/
All companies reporting accident experience to the National Safety Council	4,198	5,206,395	18.47	1.97
Cement	129	69,729	6.32	2.43
Laundry	37	10,467	8.56	.38
Textile	197	216,308	9.43	.38
Printing and publishing	31	18,404	9.67	.39
Steel	125	498,802	11.99	2.47
Rubber	52	178,901	12.48	.63
Automobile	129	457,019	12.83	1.04
Machinery	300	597,148	14.11	1.02
Glass products	38	58,846	14.34	.77
Chemical	211	204,069	15.30	1.34
Metal mining (underground mines)	46	15,031	16.63	5.91
Tanning and leather manufacturing	49	34,076	16.89	1.18
Nonferrous metallurgical	52	74,018	17.14	2.03
Metal products	442	366,535	17.38	1.28
Food	189	149,100	17.72	1.48
Petroleum	87	576,677	18.03	2.37
Public utility	941	672,308	18.78	2.95
Railway car and equipment	85	51,100	20.23	2.43
Electric railway	66	118,335	22.49	1.96
Quarry	119	17,563	23.46	3.30
Paper and pulp	232	209,565	23.65	1.89
Ceramic	40	14,983	25.85	1.59
Foundry	138	103,464	32.11	2.23
Nonmetal mining (underground mines)	22	3,102	32.56	5.08
Meat packing	67	150,525	34.38	.99
Refrigeration	52	25,392	37.17	2.28
Marine	28	30,452	38.81	3.59
Woodworking and lumbering c/	233	124,879	40.53	3.54
Mining (underground mines) d/	186	98,944	49.36	8.34
Construction	392	93,783	51.57	3.49
Anthracite coal (underground mines)	22	18,401	60.34	7.58
BITUMINOUS COAL (underground mines)	56	22,410	64.53	12.60
All mining companies, including those above (underground mines)				
Anthracite coal	No data	252,543	130.86	No data
BITUMINOUS COAL	5,890	790,149	97.10	No data

a/ Fatal and non-fatal accidents per 1,000,000 man-hours. Includes all accidents of 1-day disability or more.

b/ Days of disability per 1,000 man-hours of employment; deaths and permanent total disabilities weighted at 6,000 days each; permanent partial disabilities weighted in accordance with severity of accident.

c/ The total includes 31 plants in miscellaneous industries not shown separately.

d/ The item for "Mining (underground mines)" is the sum of the items for "Metal mining (underground mines)," "Nonmetal mining (underground mines)," "Anthracite coal (underground mines)," and "Bituminous coal (underground mines)," which are also shown separately.

Sources:
National Safety Council
and U. S. Bureau of Mines.

Prepared by W. W. Adams, Supervising Statistician,
Employment Statistics Section, Mineral Resources
and Economics Division,
U. S. Bureau of Mines,
November 12, 1931.

[fol. 1100] DEFENDANTS' EXHIBIT 40 A

Comparison of Accident Rates in Bituminous Coal Mining and Other Industries in 1934

Industry	Number of establishments	Man-hours worked (thousands)	Accident rates: Frequency rate per million man-hours a	Accident rates: Severity rate per thousand man-hours b
All companies reporting accident experience to the National Safety Council. c	3,866	4,343,740	15.29	1.70
Tobacco	23	19,513	3.13	.05
Laundry	36	8,546	5.03	.83
Printing and publishing	47	24,923	6.38	.89
Cement	114	29,866	6.50	3.89
Rubber	48	133,880	9.25	.80
Machinery	275	356,878	9.33	.83
Textile	152	167,044	9.73	.60
Glass	43	50,079	9.84	1.04
Chemical	254	217,509	10.30	1.81
Nonferrous metallurgical	57	84,777	10.30	1.46
Public utility	613	651,273	10.54	1.68
Steel	116	361,323	10.81	2.20
Marine	55	108,715	12.14	1.85
Sheet metal	184	124,949	14.07	1.30
Petroleum	128	605,390	14.31	1.69
Woodworking	100	28,553	14.99	.91
Miscellaneous metal products	160	112,725	15.02	1.41
Tanning and leather manufacturing	64	48,697	15.36	.95
Food	342	245,547	16.42	1.18
Quarry	135	11,187	17.34	3.53
Paper and pulp	216	143,277	19.07	1.95
Electric railway	49	96,196	19.29	1.83
Automobile	57	216,346	22.24	1.28
Nonmetal mining (underground mines)	22	1,931	22.27	9.85
Foundry	95	50,300	23.42	2.21
Clay products	41	12,008	24.82	1.80
Refrigeration	71	21,645	27.67	.78
Construction	84	105,730	31.89	4.32
Metal mining (underground mines)	30	9,352	35.50	5.72
Meat packing	75	168,108	38.62	1.46
Bituminous Coal (underground mines)	89	35,455	44.25	11.39
Mining (underground mines) d	168	63,264	51.45	10.19
Anthracite coal (underground mines)	27	16,526	79.33	10.18
Lumbering	44	19,825	83.83	4.80
All mining companies, including those above (under ground mines) e:				
Anthracite coal	no data	154,723	113.74	no data
Bituminous Coal	5,629	564,425	79.34	no data

(See page 1090 for footnotes.)

a Fatal and non-fatal accidents per 1,000,000 man-hours. Includes all accidents of 1-day disability or more.

b Days of disability per 1,000 man-hours of employment; deaths and permanent total disabilities weighted at 6,000 days each; permanent partial disabilities weighted in accordance with severity of accidents.

c Includes small number of plants in miscellaneous industries not shown separately and is corrected for certain duplications in the marine and petroleum industries.

d The item for "Mining (underground mines)" is the sum of the items for "Metal mining (underground mines)," "Nonmetal mining (underground mines)," "Anthracite coal (underground mines)," and "Bituminous coal (underground mines)," which are also shown separately.

e Final statistics of the Bureau of Mines for the industry as a whole have not yet been completed for 1934. For that reason the totals for 1933 are shown.

Sources: National Safety Council and U. S. Bureau of Mines.

Prepared by W. W. Adams, Supervising Statistician, Employment Statistics Section, Mineral Resources and Economics Division, U. S. Bureau of Mines, November 12, 1935.

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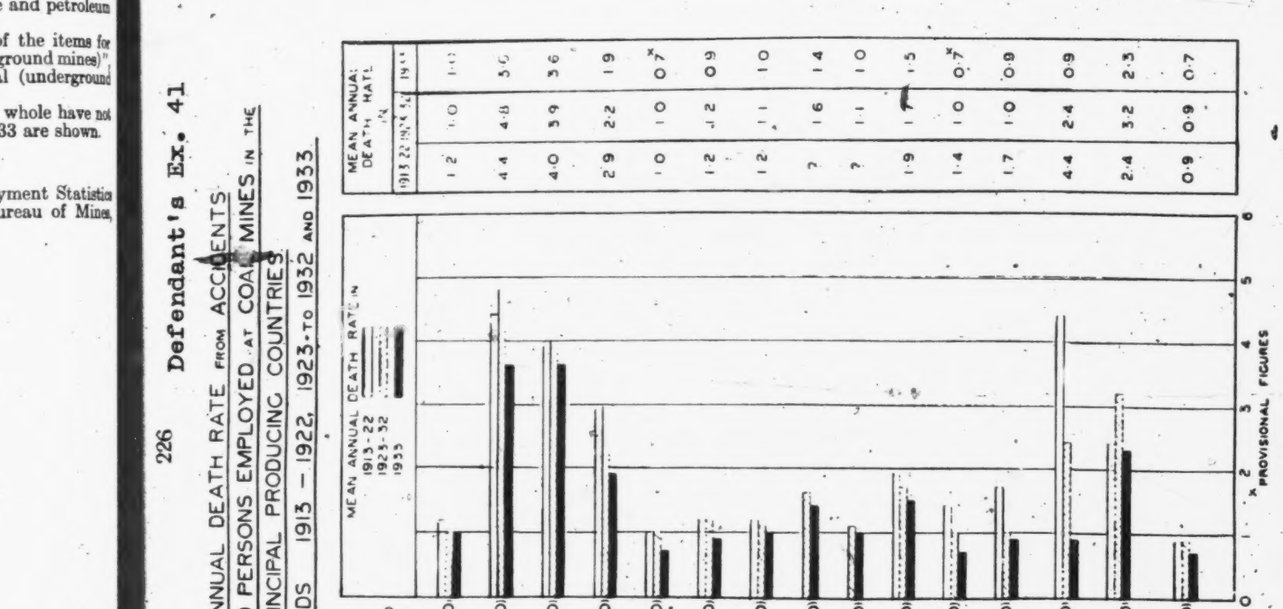
CHART VI. MEAN ANNUAL DEATH RATE FROM ACCIDENTS PER THOUSAND PERSONS EMPLOYED AT COAL MINES IN THE PRINCIPAL PRODUCING COUNTRIES FOR THE PERIODS 1913 – 1922, 1923-TO 1932 AND 1933



NOTES.

In some cases persons employed at mines other than coal mines are necessarily included, e.g., figures for Great Britain include particulars of stratified ironstone, shale and tinstay mines; and for New South Wales include shale mines. Colliery clerks are usually included in the case of British Dominions and Possessions as they are in Great Britain. In other countries they are usually not included.

In certain countries, e.g., Germany, the death-rates are calculated upon the relative number of "full time" workers, i.e., the number of men who would have been required had each one attended on every working day.

In the case of the United States of America a similar method of calculation is adopted owing to the irregularity of work at the mines. Here the death-rates are based on the assumption that continuous employment was found for a year of 300 days for the relative proportion of persons actually at work. Thus, if the average number of working days at the mines was 200, the death-rate is calculated upon two thirds of the persons employed.

From official annual report of the British Mines Department "Fourteenth annual report of the Secretary for Mines for the year ended 31st December, 1934."

Figures quoted for the United States are those of the U. S. Bureau of Mines.

Defendant's Exhibit No. 42

Coal Mines Act, 1930.

[20 & 21 Geo. 5. Ch. 34.]

ARRANGEMENT OF SECTIONS.

A.D. 1930.

PART I.

PRODUCTION, SUPPLY AND SALE OF COAL.

Section.

1. Schemes regulating production, supply and sale of coal.
2. Provisions of central scheme.
3. Provisions of district scheme.
4. Effect of schemes on contracts.
5. Committees of investigation.
6. Information to be furnished to Board of Trade.
7. Report to be laid before Parliament.
8. Information obtained under Act not to be disclosed.
9. Offences and penalties.
10. Duration of Part I.

PART II.

REORGANISATION OF COAL MINING INDUSTRY.

11. Constitution of Coal Mines Reorganisation Commission.
12. General functions of Coal Mines Reorganisation Commission.
13. Amendments of Part I of 16 & 17 Geo. 5. c. 28.

PART III.

HOURS OF WORK.

14. Temporary amendment of 8 Edw. 7. c. 57. s. 3.

PART IV.

COAL MINES NATIONAL INDUSTRIAL BOARD.

15. Power to constitute Coal Mines National Industrial Board and functions thereof.

A.D. 1930.

PART V.

GENERAL.

Section.
16. Application of 52 & 53 Vict. c. 49.
17. Exclusion of 10 & 11 Geo. 5. c. 50. s. 5 (2).
18. Interpretation.
19. Short title, citation and extent.

SCHEDULE:

Part I.—Districts for Purposes of Part I of Act.

Part II.—Provisions as to Amalgamation and Adjustment of Districts.

PART V.

GENERAL.

Section.
16. Application of 52 & 53 Vict. c. 49.
17. Exclusion of 10 & 11 Geo. 5. c. 50. s. 5 (2).
18. Interpretation.
19. Short title, citation and extent.

SCHEDULE:

Part I.—Districts for Purposes of Part I of A

Part II.—Provisions as to Amalgamation Adjustment of Districts.

CHAPTER 34.

An Act to provide for regulating and facilitating the production, supply and sale of coal by owners of coal mines; for the temporary amendment of section three of the Coal Mines Regulation Act, 1908; for the constitution and functions of a Coal Mines National Industrial Board; and for purposes connected with the matters aforesaid. [1st August 1930.]

A.D. 1930.

BE it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows :—

PART I.

PRODUCTION, SUPPLY AND SALE OF COAL.

Schemes regulating production, supply and sale of coal.

1.—(1) There shall be a scheme (hereafter in this Act referred to as "the central scheme") regulating the production, supply and sale of coal by owners of coal mines situated in Great Britain, which shall, subject to the provisions of the scheme, be administered by a body referred to in this Act as the "central council"; and, subject to the provisions of this Act, there shall be for every district a scheme (hereafter in this Act referred to as a "district scheme") regulating the production, supply and sale of coal by owners of coal mines situated in the district, which shall, subject to the provisions of the scheme, be administered by a body referred to in this Act as an "executive board".

CHAPTER 34.

An Act to provide for regulating and facilitating the production, supply and sale of coal by owners of coal mines; for the temporary amendment of section three of the Coal Mines Regulation Act, 1908; for the constitution and functions of a Coal Mines National Industrial Board; and for purposes connected with the matters aforesaid. [1st August 1930.] A.D. 1930.

BE it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows :—

PART I.

PRODUCTION, SUPPLY AND SALE OF COAL.

Schemes regulating production, supply and sale of coal.

1.—(1) There shall be a scheme (hereafter in this Act referred to as "the central scheme") regulating the production, supply and sale of coal by owners of coal mines situated in Great Britain, which shall, subject to the provisions of the scheme, be administered by a body referred to in this Act as the "central council"; and, subject to the provisions of this Act, there shall be for every district a scheme (hereafter in this Act referred to as a "district scheme") regulating the production, supply and sale of coal by owners of coal mines situated in the district, which shall, subject to the provisions of the scheme, be administered by a body referred to in this Act as an "executive board."

A.D. 1930.

PART I. —cont.

(2) No scheme shall have effect under this Act unless it has been approved or made by the Board of Trade.

(3) If before the expiration of the period of six weeks from the passing of this Act, or such further period as the Board of Trade may in any case allow, the central scheme or a district scheme for any district is submitted to the Board by any voluntary association or other persons appearing to the Board to be representative of a majority of the owners of coal mines situated in Great Britain or in the district, as the case may be, the Board may, if they are satisfied that the scheme complies with the requirements of this Act, approve the scheme with or without modifications, and in default of such a central or district scheme being so submitted and approved as aforesaid, the Board shall themselves make the scheme.

(4) For the purposes of the last foregoing subsection, the owners of coal mines which, during the period of six months ending on the thirty-first day of December, nineteen hundred and twenty-nine, produced more than half the output of Great Britain or of any district, shall, respectively, be deemed to be a majority of the owners of coal mines situated in Great Britain or in the district:

Provided that, if it appears to the Board of Trade that during the said period of six months the output of a substantial number of coal mines in any district was subject to regulation under any arrangements made by a voluntary association or otherwise, the Board may treat any scheme submitted to them for that district as if the latest period of six months during which the output of those coal mines was not so regulated had been the period mentioned in the foregoing provisions of this subsection.

(5) Any scheme may be amended with the approval of the Board of Trade in manner provided by the scheme, and a new scheme to have effect in substitution for any scheme theretofore in force may at any time be submitted to the Board of Trade by the central council, or, in the case of a new scheme for any district, by the executive board for any district affected thereby, and any scheme so submitted shall, if approved by the Board, have effect accordingly.

A.D. 1930.

PART I. —*cont.*

(2) No scheme shall have effect under this Act unless it has been approved or made by the Board of Trade.

(3) If before the expiration of the period of six weeks from the passing of this Act, or such further period as the Board of Trade may in any case allow, the central scheme or a district scheme for any district is submitted to the Board by any voluntary association or other persons appearing to the Board to be representative of a majority of the owners of coal mines situated in Great Britain or in the district, as the case may be, the Board may, if they are satisfied that the scheme complies with the requirements of this Act, approve the scheme with or without modifications, and in default of such a central or district scheme being so submitted and approved as aforesaid, the Board shall themselves make the scheme.

(4) For the purposes of the last foregoing subsection, the owners of coal mines which, during the period of six months ending on the thirty-first day of December, nineteen hundred and twenty-nine, produced more than half the output of Great Britain or of any district, shall, respectively, be deemed to be a majority of the owners of coal mines situated in Great Britain or in the district:

Provided that, if it appears to the Board of Trade that during the said period of six months the output of a substantial number of coal mines in any district was subject to regulation under any arrangements made by a voluntary association or otherwise, the Board may treat any scheme submitted to them for that district as if the latest period of six months during which the output of those coal mines was not so regulated had been the period mentioned in the foregoing provisions of this subsection.

(5) Any scheme may be amended with the approval of the Board of Trade in manner provided by the scheme, and a new scheme to have effect in substitution for any scheme theretofore in force may at any time be submitted to the Board of Trade by the central council, or, in the case of a new scheme for any district, by the executive board for any district affected thereby, and any scheme so submitted shall, if approved by the Board, have effect accordingly.

A.D. 1930.

PART I —*cont.*

(6) Every scheme shall come into force on such date as the Board of Trade may appoint, being (except where a scheme is made by the Board themselves or is to take effect in substitution for a previous scheme) a date not less than one month nor more than three months after the passing of this Act, and the Board may appoint different dates for different schemes, and any scheme for the time being in force shall have effect as if it were enacted in this Act.

(7) The Board of Trade shall, immediately after making or approving any scheme or any amendment thereof, publish the scheme or amendment, as the case may be, in the London Gazette and for the purpose of the Documentary Evidence Acts, 1868 to 1895, any such scheme or amendment shall be deemed to be an order of the Board.

Provisions of central scheme.

2.—(1) The central scheme shall provide for the constitution of the central council which shall, subject as hereinafter provided, be composed of representatives of all the owners of coal mines in the several districts:

Provided that, if the scheme is made by the Board of Trade, the central council shall be composed of persons nominated by the Board of Trade after consultation with such voluntary associations (if any) as may appear to the Board to be representative of the owners aforesaid.

(2) The central scheme shall further provide for the following matters—

(*a*) for empowering the central council to appoint officers and do all things necessary for the discharge of their functions under the central scheme;

(*b*) for the allocation to each district by the council, after consultation with the executive board for the district, of a maximum output for the district (in this Act referred to as "the district allocation");

(*c*) for the district allocation being determined at such times and for such periods as the council think fit, so however that the council shall be required to amend the allocation during any such period if they are satisfied upon the

(6) Every scheme shall come into force on such date as the Board of Trade may appoint, being (except where a scheme is made by the Board themselves or is to take effect in substitution for a previous scheme) a date not less than one month nor more than three months after the passing of this Act, and the Board may appoint different dates for different schemes, and any scheme for the time being in force shall have effect as if it were enacted in this Act.

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2.—(1) The central scheme shall provide for the constitution of the central council which shall, subject as hereinafter provided, be composed of representatives of all the owners of coal mines in the several districts:

Provided that, if the scheme is made by the Board of Trade, the central council shall be composed of persons nominated by the Board of Trade after consultation with such voluntary associations (if any) as may appear to the Board to be representative of the owners aforesaid.

(2) The central scheme shall further provide for the following matters—

(*a*) for empowering the central council to appoint officers and do all things necessary for the discharge of their functions under the central scheme;

(*b*) for the allocation to each district by the council, after consultation with the executive board for the district, of a maximum output for the district (in this Act referred to as "the district allocation");

(*c*) for the district allocation being determined at such times and for such periods as the council think fit, so however that the council shall be required to amend the allocation during any such period if they are satisfied upon the

A.D. 1930.

PART I. —*cont.*

representation of the executive board for the district that it is necessary to do so in order to meet an increased demand for coal or any class of coal;

(*d*) for the consideration by the council of the operation of the district schemes and for the giving of advice thereon by the council to the executive boards for the several districts, with a view to co-ordinating the operation of the district schemes;

(*e*) for the collection by the council from the executive boards for the several districts of levies, imposed upon them in proportion to the output or disposal of their respective districts, for the purpose of defraying the expenses of the council;

(*f*) for the establishment of a central fund, for the administration and control of the fund (subject to the provisions of the central scheme) by the council, for the payment into the fund of any money received by the council under the provisions of that scheme, and for the payment out of the fund of the expenses of the council and any money payable by the council under the provisions of that scheme;

(*g*) for the appointment of trustees for the council, for the vesting in the trustees of the central fund and of all other property of the council, and for enabling the trustees to sue and be sued for and on behalf of the council;

(*h*) for requiring the executive boards for the several districts to furnish to the council, or any person authorised by the council, such returns, accounts and other information as the council may consider necessary for the operation of the central scheme;

(*i*) for securing that any executive board, which is aggrieved by any act or omission of the council or of any other executive board or of any other persons in respect of their functions under a scheme in force under this Act, may refer the matter to one or more independent arbitrators, appointed in such manner as may be provided by the scheme; and for the

representation of the executive board for the district that it is necessary to do so in order to meet an increased demand for coal or any class of coal ;

(*d*) for the consideration by the council of the operation of the district schemes and for the giving of advice thereon by the council to the executive boards for the several districts, with a view to co-ordinating the operation of the district schemes;

(*e*) for the collection by the council from the executive boards for the several districts of levies, imposed upon them in proportion to the output or disposal of their respective districts, for the purpose of defraying the expenses of the council;

(*f*) for the establishment of a central fund, for the administration and control of the fund (subject to the provisions of the central scheme) by the council, for the payment into the fund of any money received by the council under the provisions of that scheme, and for the payment out of the fund of the expenses of the council and any money payable by the council under the provisions of that scheme;

(*g*) for the appointment of trustees for the council, for the vesting in the trustees of the central fund and of all other property of the council, and for enabling the trustees to sue and be sued for and on behalf of the council ;

(*h*) for requiring the executive boards for the several districts to furnish to the council, or any person authorised by the council, such returns, accounts and other information as the council may consider necessary for the operation of the central scheme;

(*i*) for securing that any executive board, which is aggrieved by any act or omission of the council or of any other executive board or of any other persons in respect of their functions under a scheme in force under this Act, may refer the matter to one or more independent arbitrators, appointed in such manner as may be provided by the scheme; and for the

manner in which any such reference is to be heard and determined;

(*j*) for the imposition on and recovery from an executive board for a district of such monetary penalties as may be specified by the central scheme in the event of that board, or of any other person having functions under the scheme for that district, contravening or failing to comply with the central scheme;

(*k*) for the manner in which the assets and liabilities of the council are to be dealt with on the expiration of this Part of this Act.

(3) The central scheme may provide for such matters as appear to the Board of Trade to be incidental to, or consequential on, the foregoing provisions of this section or to be necessary for giving effect to those provisions.

(4) If the central council make to the Board of Trade representations that for the purpose of regulating or facilitating the production, supply, or sale of coal, or any class of coal, by owners of coal mines situated in Great Britain it is necessary or expedient that the central scheme should make provision for any matters in addition to or in substitution for the matters mentioned in subsections (2) and (3) of this section, the Board may lay before each House of Parliament the draft of an order providing that the scheme may be amended so as to provide for the matters with respect to which the representations were made and those matters shall be specified in the draft order, and, if each House resolves that the order shall be made, the Board shall make an order in the terms of the draft to take effect on such date as may be specified in the order, and the scheme may be amended accordingly in manner provided by the scheme.

Provisions of district scheme.

3.—(1) Every district scheme shall provide for the election of the executive board by all the owners of coal mines in the district in such manner as will ensure that any owners, who were not represented by the voluntary association or other persons who submitted the scheme,

manner in which any such reference is to be heard and determined;

(*j*) for the imposition on and recovery from an executive board for a district of such monetary penalties as may be specified by the central scheme in the event of that board, or of any other person having functions under the scheme for that district, contravening or failing to comply with the central scheme;

(*k*) for the manner in which the assets and liabilities of the council are to be dealt with on the expiration of this Part of this Act.

(3) The central scheme may provide for such matters as appear to the Board of Trade to be incidental to, or consequential on, the foregoing provisions of this section or to be necessary for giving effect to those provisions.

(4) If the central council make to the Board of Trade representations that for the purpose of regulating or facilitating the production, supply, or sale of coal, or any class of coal, by owners of coal mines situated in Great Britain it is necessary or expedient that the central scheme should make provision for any matters in addition to or in substitution for the matters mentioned in subsections (2) and (3) of this section, the Board may lay before each House of Parliament the draft of an order providing that the scheme may be amended so as to provide for the matters with respect to which the representations were made and those matters shall be specified in the draft order, and, if each House resolves that the order shall be made, the Board shall make an order in the terms of the draft to take effect on such date as may be specified in the order, and the scheme may be amended accordingly in manner provided by the scheme.

Provisions of district scheme.

3.—(1) Every district scheme shall provide for the election of the executive board by all the owners of coal mines in the district in such manner as will ensure that any owners, who were not represented by the voluntary association or other persons who submitted the scheme, shall be fairly represented on the board as first elected:

A.D. 1930.

PART I. —*cont.*

Provided that, if the scheme is made by the Board of Trade, the executive board shall be composed of persons nominated by the Board of Trade after consultation with such voluntary association (if any) as may appear to the Board of Trade to be representative of the owners aforesaid, or, where there is no such association, with the central council.

(2) Every district scheme shall further provide for the following matters—

(*a*) for empowering the executive board to appoint officers and do all things necessary for the discharge of their functions under the scheme;

(*b*) for the determination of the class to which any coal produced in the district belongs for any purpose;

(*c*) for the determination, at such times and for such periods as may be decided in accordance with the provisions of the scheme, of the standard tonnage of every coal mine in the district in respect of coal and, if it is so decided in accordance with the provisions of the scheme, in respect of any class of coal, so, however, that the method of determination shall be specified in the scheme, and shall be such a method as will ensure that, for the purpose of the determination, regard shall be had to the special circumstances of every coal mine (including the efficiency and economy of the working of the coal mine, the extent to which it has been developed or is being developed for economic working, the extent to which its output has been increasing or decreasing, and, in the case of the first determination, the proportion which the output of the coal mine bore to the output of the district during some recent period during which no arrangements made by a voluntary association or otherwise were in force regulating the output of any substantial number of coal mines in the district);

(*d*) for the determination, at such times and for such periods as may be decided in accordance with the provisions of the scheme, of the proportion (in this Act referred to as the "quota") of

A.D. 1930.

PART I. —*cont.*

Provided that, if the scheme is made by the Board of Trade, the executive board shall be composed of persons nominated by the Board of Trade after consultation with such voluntary association (if any) as may appear to the Board of Trade to be representative of the owners aforesaid, or, where there is no such association, with the central council.

(2) Every district scheme shall further provide for the following matters—

(*a*) for empowering the executive board to appoint officers and do all things necessary for the discharge of their functions under the scheme;

(*b*) for the determination of the class to which any coal produced in the district belongs for any purpose;

(*c*) for the determination, at such times and for such periods as may be decided in accordance with the provisions of the scheme, of the standard tonnage of every coal mine in the district in respect of coal and, if it is so decided in accordance with the provisions of the scheme, in respect of any class of coal, so, however, that the method of determination shall be specified in the scheme, and shall be such a method as will ensure that, for the purpose of the determination, regard shall be had to the special circumstances of every coal mine (including the efficiency and economy of the working of the coal mine, the extent to which it has been developed or is being developed for economic working, the extent to which its output has been increasing or decreasing, and, in the case of the first determination, the proportion which the output of the coal mine bore to the output of the district during some recent period during which no arrangements made by a voluntary association or otherwise were in force regulating the output of any substantial number of coal mines in the district);

(*d*) for the determination, at such times and for such periods as may be decided in accordance with the provisions of the scheme, of the proportion (in this Act referred to as the "quota") of the

standard tonnage which each of the coal mines in the district is to be allowed to produce, so, however, that the scheme shall provide—

(i) that in any district in which a standard tonnage has been determined for any class of coal, a separate quota may be fixed as respects that class; and

(ii) that the quota fixed as respects coal or any class of coal shall be the same proportion of the standard tonnage of coal, or of the class of coal, as the case may be, for all coal mines in the district; and

(iii) that all quotas shall be so calculated that, during any period for which the district allocation has been fixed by the central council, that allocation shall not be exceeded;

(*e*) for enabling arrangements to be made by owners of coal mines in the district, whereby the output of coal or any class of coal from any such mine may exceed the quota fixed for that mine, as respects coal or that class of coal, so long as the output of coal or that class of coal from some other mine in the district is lower than the quota fixed for that other mine, as respects coal or that class of coal, by an amount not less than the excess;

(*f*) for the determination, at such times and for such periods as may be decided in accordance with the provisions of the scheme, of the price below which every class of coal produced in the district may not be sold or supplied by owners of coal mines in the district, and for securing that the actual consideration obtained by the sale or supply of the several classes of coal, exclusive of coal supplied free or at reduced rates for the use of persons who are or have been employed in or about the mine, and the dependants of persons who have been so employed, shall not be less in value than the price so determined;

(*g*) for the collection by the executive board from the owners of coal mines in the district of levies, imposed upon the several owners in proportion

A.D. 1930.

PART I. —*cont.*

to the output or disposal of their respective coal mines in the district, for the purpose of defraying the expenses of the executive board and any penalties imposed on, or levies payable by, that board under the provisions of the central scheme;

(*h*) for the establishment of a district fund, for the administration and control of the fund (subject to the provisions of the scheme) by the executive board, for the payment into the fund of any money received under the provisions of the central scheme or of the district scheme by the executive board or by any other persons in respect of their functions under the district scheme, and for the payment out of the fund of the expenses of the executive board and of any moneys payable by that board under either of those schemes;

(*i*) for the appointment of trustees for the executive board, for the vesting in the trustees of the district fund and of all other property of the executive board, and for enabling the trustees to sue and be sued for and on behalf of the executive board;

(*j*) for requiring the owners of coal mines in the district to furnish to the executive board or any person authorised by that board such returns, accounts and other information as that board may consider necessary for the operation of the scheme;

(*k*) for the production to and inspection by an accountant authorised by the executive board for this purpose of books and accounts relating to any coal mine in the district and for the submission by him of a report to the executive board;

(*l*) for securing that any owner of a coal mine in the district, who is aggrieved by any act or omission of the executive board or of any other persons in respect of their functions under the scheme, may refer the matter to one or more independent arbitrators, appointed in such manner as may be provided by the

scheme; and for the manner in which any such reference is to be heard and determined;

(*m*) for the imposition on and recovery from the owner of any coal mine in the district of such monetary penalties as may be specified by the scheme in the event of his contravention of or failure to comply with the scheme;

(*n*) for the manner in which the assets and liabilities of the executive board are to be dealt with in the event of the scheme ceasing to have effect under this Act or on the expiration of this Part of this Act:

Provided that a district scheme may make provision for the determination of the standard tonnage of, and quota for, any two or more coal mines in the district which are worked by the same colliery undertaking as if they were one coal mine.

(3) A district scheme may further provide—

(*a*) for the deduction, if it is so decided in accordance with the provisions of the scheme, from the quota of any coal mine for any period of the tonnage by which, in contravention of the provisions of the scheme, the output of the coal mine has during any previous period exceeded the quota of the coal mine for that previous period, but without prejudice to any penalty that may have been incurred by reason of the excess;

(*b*) for such matters as appear to the Board of Trade to be incidental to, or consequential on, the foregoing provisions of this section or to be necessary for giving effect to those provisions.

(4) If the executive board for any district make to the Board of Trade representations that for the purpose of regulating or facilitating the production, supply, or sale of coal, or any class of coal, by owners of coal mines situated in that district it is necessary or expedient that the district scheme should make provision for any matters in addition to or in substitution for the matters mentioned in subsections (2) and (3) of this section, the Board may lay before each House of

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PART I. —*cont.*

Parliament the draft of an order providing that the scheme may be amended so as to provide for the matters with respect to which the representations were made, and those matters shall be specified in the draft order, and, unless either House before the expiration of a period of twenty days on which that House has sat next after the draft is laid before it resolves that the order shall not be made, the Board may make an order in the terms of the draft to take effect on such date after the expiration of that period as may be specified in the order, and the scheme may, with the approval of the Board, be amended accordingly in manner provided by the scheme:

Provided that, in the case of any draft order providing that a district scheme may be amended so as to provide for empowering the executive board for the district, subject to the consent of the central council, to collect from the owners of coal mines in the district levies for the purpose of facilitating the sale of any class of coal produced in the district, the foregoing provisions of this section shall have effect as if for the reference therein to a period of twenty days there were substituted a reference to a period of twenty-five days.

Effect of schemes on contracts.

4.—(1) A contract for the sale or supply of coal, whether made before or after the passing of this Act, shall not, unless the terms of the contract otherwise provide, be void or unenforceable as between the parties by reason that it cannot be performed without contravening the provisions of a scheme in force under this Part of this Act.

(2) Where the output of a coal mine exceeds during any period the quota of that mine for that period, the owner of the mine shall not be liable to any penalty under any district scheme, nor shall any deduction be made from the quota of the mine for any subsequent period, in respect of the excess, if it is adjudged by the persons having power under the scheme to impose the penalty or make the deduction or, in the event of an arbitration, by the arbitrator,—

(*a*) that the excess was solely occasioned by the performance of contracts made before the eleventh day of December, nineteen hundred and twenty-nine;

(*b*) that the excess was reasonably necessary for the performance of those contracts; and

(*c*) that, having regard to the provisions of the central scheme, the imposition of the penalty or the making of the deduction, as the case may be, can, without substantial injury to the interests of the owners of other coal mines in the district, be dispensed with.

(3) The owner of a coal mine shall not be liable to any penalty under any district scheme by reason of the fact that he has, in pursuance of any contract, sold or supplied coal at a price below the minimum price determined in respect of that coal under the scheme at the time of the sale or supply, unless the price at which the coal was contracted to be sold or supplied was lower than the minimum price determined in respect thereof under the scheme at the time when the contract was made, or, where no minimum price had then been determined in respect of the coal, unless it is adjudged by the persons having power under the scheme to impose the penalty, or, in the event of an arbitration, by the arbitrator, that the quantity of coal contracted to be sold or supplied is greater, or the period over which the coal was contracted to be sold or supplied is longer than it would have been if no party to the contract had anticipated that the price would be regulated under the scheme.

Committees of investigation

5.—(1) There shall be constituted a national committee of investigation consisting of nine members, which shall be charged with the duty of investigating any complaint made with respect to the operation of the central scheme, and there shall also be constituted for every district a district committee of investigation consisting of five members, which shall be charged with the duty of investigating any complaint made with respect to the operation of the district scheme for the district for which the committee is constituted:

Provided that no such committee shall be empowered to investigate a complaint which could be referred to arbitration by the complainant under the provisions of any such scheme.

(2) The chairman and other members of every committee of investigation shall be persons appointed

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by the Board of Trade, and, of the members of the committee other than the chairman, one half shall be persons appointed to represent the interests of consumers of coal, and—

(*a*) in the case of the national committee two shall be persons appointed to represent owners of coal mines in Great Britain and the other two shall be persons appointed to represent workers employed in or about such coal mines;

(*b*) in the case of a district committee one shall be appointed to represent the owners of coal mines in the district and the other shall be appointed to represent workers employed in or about such coal mines;

and before appointing any person as a representative of any interest, the Board shall consult such bodies as appear to them to represent that interest.

(3) The meetings and procedure of every committee of investigation shall be regulated in accordance with directions issued by the Board of Trade for the purpose.

(4) The Board of Trade may appoint a secretary to each committee of investigation, and each such committee may employ such accountants, officers and servants as the Board may, with the approval of the Treasury, determine, and there shall be paid by the Board such remuneration (if any) to the chairman of the committee, such travelling and subsistence allowances to the chairman and members of the committee, such remuneration to the secretary so appointed and to the accountants, officers and servants so employed, and such other expenses of the committee, as the Board, with the approval of the Treasury, may determine, and any expenses of the Board under this subsection shall be defrayed out of moneys provided by Parliament.

(5) Where a committee of investigation is required in pursuance of this section to investigate a complaint with respect to the operation of a scheme, the council or executive board charged with the duty of administering the scheme shall furnish the committee with such returns, accounts and other information relating to the operation of the scheme as the committee considers relevant to the investigation.

(6) If after investigating any complaint made with respect to the operation of a scheme, a committee of investigation is of opinion that any provision of the scheme is contrary to the public interest or ought to be amended on the ground that it is unfair or inequitable in its operation, it shall be the duty of the committee to report the matter to the Board of Trade, and if, after considering the report and consulting such persons as appear to them to be affected, the Board agree with the opinion of the committee, the Board shall make recommendations to the council or executive board charged with the duty of administering the scheme, with a view to the rectification of the matter complained of.

The Board of Trade may hold inquiries for the purpose of assisting them to consider any report made to them under this subsection by a committee of investigation in like manner as they are empowered under section twenty-two of the Mining Industry Act, 1920, to hold inquiries for the purposes of that Act, and that section shall apply with respect to inquiries held by the Board under this subsection accordingly. 10 & 11 Geo. 5. c. 50.

(7) If after the Board of Trade have, under the provisions of the last foregoing subsection, made recommendations to the executive board charged with the duty of administering any district scheme, the matter complained of is not rectified to the satisfaction of the Board, the Board may, by order published in the London Gazette, direct that the scheme shall cease to have effect under this Act and the Board shall, subject as hereinafter provided, make a new scheme in substitution therefor:

Provided that, if and so long as the Board of Trade and the central council are both satisfied that, under arrangements made by any voluntary association or otherwise by owners of coal mines in the district, the provisions of the central scheme are being complied with in that district not less effectively than in other districts, the Board shall not, except at the request of the central council, make such a new scheme as aforesaid; and during any period during which, by reason of such arrangements as aforesaid, a district scheme is not in force under this Act for any district, the provisions of this Act relating to the central scheme and the

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PART I. —*cont.*

provisions of the central scheme shall, as respects that district, have effect as if for references therein to the executive board or to any other persons having functions under the district scheme there were substituted references to the association by which, or owners by whom, the arrangements were made.

(8) If after investigating any complaint made with respect to the operation of a scheme, a committee of investigation is of opinion that any act or omission of any persons in respect of their functions under the scheme is having or is likely to have an effect contrary to the public interest or ought not to be permitted on the ground that it is unfair or inequitable, it shall be the duty of the committee to make representations with respect thereto to the persons having power under the scheme to rectify the matter; and if, upon such representations being made, the matter is not dealt with to the satisfaction of the committee, the committee may refer the matter to a single independent arbitrator to be appointed by agreement between the committee and the body charged with the duty of administering the scheme, or, in default of agreement, by the Board of Trade, and the persons having power under the scheme to give effect to the decision shall comply therewith and exercise their functions under the scheme in conformity with the decision.

(9) A committee of investigation, upon referring any matter to arbitration in accordance with the last foregoing subsection, shall make a report thereon to the Board of Trade, and shall also report to the Board the arbitrator's decision and what steps have been taken to comply therewith, and the Board shall have power to make in the scheme such amendments (if any) as they think necessary for securing that the scheme will be administered in conformity with the decision, and in particular may by such amendments alter the composition of the body charged with the administration of the scheme as if the scheme had been made by the Board.

(10) Any person aggrieved—

(*a*) by the neglect or refusal of a committee of investigation to report to the Board of Trade that any provision of a scheme is contrary to the public interest, or ought to be amended on the ground that it is unfair or inequitable

in its operation, or where such a report has been made is aggrieved by any act or omission of the Board of Trade in relation thereto; or

(*b*) by the neglect or refusal of a committee of investigation to refer a complaint to arbitration under subsection (8) of this section;

may, with the leave of the Railway and Canal Commission, appeal to that Commission who shall have power to make such order as they think fit.

(11) The Board of Trade shall make regulations for the conduct of references to arbitration under this section, and such regulations shall make provision as to the persons by whom the remuneration of the arbitrator is to be defrayed, and all such regulations shall be laid before Parliament.

Information to be furnished to Board of Trade.

6. It shall be the duty of the central council as respects the central scheme, and of the executive board for any district as respects the scheme for that district, to furnish to the Board of Trade, in such manner and form as the Board may direct, such returns, accounts and other information with respect to the operation of the scheme as the Board may at any time require.

Report to be laid before Parliament

7. The Board of Trade shall in the year nineteen hundred and thirty-one and each subsequent year lay before Parliament a report upon the operation of all the schemes for the time being in force under this Act.

Information obtained under Act not to be disclosed.

8. No information with respect to any particular undertaking shall be included in any report published under this Part of this Act by the Board of Trade, the central council, an executive board, the national committee of investigation, or a district committee of investigation, unless the owner of the undertaking agrees thereto, and any person who obtains any information in the exercise of the powers conferred upon the council or upon any executive board by any scheme made in pursuance of this Part of this Act, or conferred upon any such committee by this Part of this Act, shall be required to make a declaration of secrecy in such form as may be prescribed by the Board of Trade, and any person who discloses any information so obtained by him shall be guilty of a misdemeanour and liable, on conviction on indictment, to imprisonment

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for a term not exceeding two years, or to a fine not exceeding one hundred pounds, or to both such imprisonment and fine, or on summary conviction to imprisonment for a term not exceeding three months or to a fine not exceeding fifty pounds, or to both such imprisonment and fine:

Provided that nothing in this section shall apply to the publication or disclosure of any information in so far as it is required to be published or disclosed for the purposes of legal proceedings (including arbitrations) under this Part of this Act or any scheme made thereunder or for any report of such proceedings, or in so far as it is required or authorised by this Part of this Act or any scheme made thereunder to be published or disclosed to the Board of Trade, the central council, a committee of investigation or an executive board.

Offences and penalties.

9.—(1) If any person contravenes or fails to comply with any provision of this Part of this Act or of a scheme in force thereunder, and no penalty for the contravention or failure is expressly provided by this Part of this Act or the scheme, he shall be liable on summary conviction to a fine not exceeding one hundred pounds, and to a further fine not exceeding twenty pounds for every day on which the contravention or failure occurs or continues.

(2) Where an offence under this Part of this Act or a scheme in force thereunder, committed by a corporation, is proved to have been committed with the consent or connivance of, or to have been facilitated by any neglect on the part of, any director, manager, secretary or other officer of the corporation, he, as well as the corporation, shall be deemed to be guilty of an offence and shall be liable to be proceeded against and punished accordingly.

Duration of Part I.

10.—(1) This Part of this Act shall continue in force until the thirty-first day of December, nineteen hundred and thirty-two, and no longer, unless Parliament otherwise determines:

Provided that the expiration of this Part of this Act shall not—

(*a*) affect the previous operation of, or anything duly done or suffered under, this Part of this Act; or

(*b*) affect any right, privilege, exemption, obligation, or liability acquired, accrued, or incurred under this Part of this Act; or

(*c*) affect any penalty or punishment incurred under this Part of this Act; or

(*d*) affect any investigation, legal proceeding, or remedy in respect of any such right, privilege, obligation, liability, penalty, or punishment as aforesaid;

and any such investigation, legal proceeding, or remedy may be instituted, continued, or enforced, and any such penalty or punishment may be imposed as if this Part of this Act had not expired.

(2) The provisions of this Part of this Act making it an offence to disclose information shall continue in force notwithstanding the expiration of this Part of this Act.

PART II.

REORGANISATION OF COAL MINING INDUSTRY.

Constitution of Coal Mines Reorganisation Commission.

11.—(1) There shall be constituted a Coal Mines Reorganisation Commission (hereafter in this section referred to as "the Commission"), which shall consist of five commissioners appointed by the Board of Trade for such period and subject to such conditions as may be determined by the Board, and the Board shall appoint one of the commissioners to be chairman.

(2) A person shall be disqualified for being appointed, or being, a commissioner so long as he is a Member of the Commons House of Parliament.

(3) A commissioner shall within three months after his appointment sell or dispose of any interest or shares or securities which he may hold in his own name or in the name of a nominee for his own benefit in any undertaking carrying on in Great Britain the business of coal mining or supplying or selling coal or the manufacture or sale of by-products of coal or machinery or plant for coal mining; and it shall not be lawful for a commissioner while he holds office to acquire for his own benefit any interest or shares or securities in any such undertaking and if a commissioner,

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under any will or succession or otherwise, becomes entitled for his own benefit to any interest or shares or securities in any such undertaking he shall sell or dispose of it or them within three months after he has so become entitled thereto.

(4) If a commissioner becomes disqualified for holding office, or fails to comply with the provisions of the last foregoing subsection, or becomes in the opinion of the Board of Trade unfit to continue in office or incapable of performing his duties under this Act, the Board shall forthwith declare his office to be vacant, and shall notify the fact in such manner as they think fit, and thereupon the office shall become vacant.

(5) For the purposes of any business for which a quorum of the commissioners is required by this Act to be present, three commissioners personally present shall be a quorum, but, save as aforesaid, the Commission shall have power to regulate their own procedure, and may act notwithstanding a vacancy in their number.

(6) The Board of Trade may appoint a secretary to the Commission and the Commission may employ such officers and servants as the Board may, with the approval of the Treasury, determine, and there shall be paid by the Board such remuneration to the commissioners and to the secretary, officers, and servants of the Commission and such other expenses of the Commission as the Board may, with the approval of the Treasury, determine, and any expenses of the Board under this subsection shall be defrayed out of moneys provided by Parliament.

(7) Any document purporting to be issued by the Commission and to be signed by the secretary or any person authorised to act in that behalf shall be received in evidence and be deemed to have been so issued without further proof unless the contrary is shown.

General functions of Coal Mines Reorganisation Commission.

12.—(1) It shall be the duty of the Coal Mines Reorganisation Commission (hereafter in this section referred to as "the Commission") to further the reorganisation of the coal mining industry with a view to facilitating the production, supply, and sale of coal by owners of coal mines, and for that purpose to promote and assist, by the preparation of schemes and otherwise, the amalgamation of undertakings consisting of

comprising coal mines where such amalgamations appear to the Commission to be in the national interest.

(2) The Commission may hold such inquiries as they consider necessary or desirable for the discharge of their functions under this Act, and, in respect of any meeting of the Commission at which a quorum of the commissioners is present for the purpose of any such inquiry, the Tribunals of Inquiry (Evidence) Act, 1921, (other than paragraph (*a*) of section two thereof) shall apply to the Commission as if it were a tribunal established in manner provided by that Act and as if that Act had been applied thereto in the manner thereby provided. 11 & 12 Geo. 5. c. 7

(3) The Commission may from time to time employ such technical and professional agents as they consider necessary or desirable for the discharge of their functions under this Act, and, subject as hereinafter provided, there shall be paid by the Board of Trade such remuneration to the agents so employed as the Board may, with the approval of the Treasury, determine, and the expenses of the Board under this subsection shall be defrayed out of moneys provided by Parliament:

Provided that a sum certified by an accountant appointed by the Board of Trade to be equal to the amount of any expenses properly incurred by the employment of such agents as aforesaid for the purpose of promoting or assisting the amalgamation of any undertakings shall, in the event of the undertakings being amalgamated, be repaid to the Board by the owners of the amalgamated undertaking.

Amendments of Part I of 16 & 17 Geo. 5. c. 28.

13.—(1) If it appears to the Coal Mines Reorganisation Commission that it is expedient for the purpose of promoting the more economical and efficient working, treating or disposing of coal that an amalgamation scheme or an absorption scheme, under Part I of the Mining Industry Act, 1926 (hereinafter in this section referred to as "the Act of 1926"), should be prepared and submitted with respect to any two or more undertakings consisting of or comprising coal mines, the Commissioners shall require the owners of those undertakings to prepare and submit to the Board of Trade an amalgamation scheme or absorption scheme with respect to those undertakings framed in accordance with the provisions of Part I of the Act of 1926, and if the

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PART II. —*cont.*

owners fail so to submit such a scheme within such a time as may have been specified by the Commissioners, the Commissioners shall themselves prepare and submit such a scheme to the Board of Trade, and for the purposes of that Part of that Act any scheme so prepared and submitted by the Commission shall be deemed to have been prepared and submitted in manner provided by subsection (1) or (2), as the case may be, of section one of that Act, and that Act shall apply accordingly:

Provided that—

(*a*) no such scheme of amalgamation shall provide, without the consent of the owner of the undertaking, for the separation of the treating or disposing of coal from the working thereof, or, in the case of an undertaking of which the primary object is not coal mining, for the separation from the undertaking of any coal mine worked as ancillary to such primary object;

(*b*) no coal mine belonging to a company whereof all the shares are held by the owner of an undertaking of which the primary object is not coal mining shall, so long as it is worked as ancillary to such primary object, be amalgamated or absorbed by virtue of a scheme prepared under this section without the consent of the owner of that undertaking.

(2) In the consideration by the Railway and Canal Commission of a scheme submitted to the Board of Trade under this section, the following paragraph shall be substituted for paragraph (*a*) of the proviso to subsection (2) of section seven of the Act of 1926 (which relates to consideration of schemes by the Commission):—

"(*a*) shall not confirm a scheme unless satisfied—

(i) that it would be in the national interest to do so, and

(ii) in the case of an amalgamation scheme that the scheme

(*a*) will result in lowering the cost of production or disposal of coal, and

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(*b*) will not be financially injurious to any of the undertakings proposed to be amalgamated, unless the scheme contains provisions for the purchase, at a price to be fixed in default of agreement by arbitration, of any such undertaking; and

(iii) that the terms of the scheme are fair and equitable to all persons affected thereby; and"

(3) If the owner of any undertaking (in this subsection referred to as the "transferor undertaking") proposed by any scheme submitted by the Coal Mines Reorganisation Commission to be amalgamated with, or absorbed in, any other undertaking (in this subsection referred to as the "transferee undertaking") satisfies the Railway and Canal Commission that any property, whether real or personal, belonging to the transferor undertaking formed, at the date of the passing of this Act, a reserve which, when the scheme was submitted, was not required for the efficient carrying on of the transferor undertaking, the Railway and Canal Commission shall not confirm the scheme except after making such modifications, if any, as may be necessary for securing that that property will not be transferred to the transferee undertaking.

(4) For the purposes of any scheme under Part I of the Act of 1926 the value of the undertaking of every constituent or absorbed company shall be assessed upon the basis of what would have been the value thereof as between a willing buyer and a willing seller if this Act had not been passed, and no such scheme shall be submitted to the Board of Trade under the said Part I unless the Coal Mines Reorganisation Commission have certified that such values have been so assessed for the purposes of that scheme.

(5) Where a scheme is referred by the Board of Trade to the Railway and Canal Commission under section six of the Act of 1926, the Coal Mines Reorganisation Commission shall be entitled to appear and be heard at any proceedings in connection with the scheme.

(6) No scheme shall be submitted or certificate granted by the Commission under this section except in

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pursuance of a decision made at a meeting at which a quorum of the Commissioners is present.

(7) Where an amalgamation scheme submitted to the Board of Trade by the owners of two or more undertakings under subsection (1) of section one of the Act of 1926 is certified by the Coal Mines Reorganisation Commission to be in the national interest, and the owners submitting the scheme represent to the Board that it is unnecessary for the purpose of giving effect to the scheme that it should be confirmed by the Railway and Canal Commission under the Act of 1926, it shall not be necessary for the Board to refer the scheme to the Railway and Canal Commission under that Act, but if the Board certify that the provisions of the scheme as to any debentures or as to the issue of any share or loan capital are reasonably required for the purpose of the amalgamation, subsection (2) of section five of the Act of 1926 (which grants certain exemptions from stamp duty in respect of schemes confirmed by the Railway and Canal Commission) shall apply in respect of the scheme and of anything done in pursuance thereof as if the scheme had been confirmed by the Railway and Canal Commission.

(8) This section shall be construed as one with Part I of the Act of 1926.

PART III.

HOURS OF WORK.

Temporary amendment of 8 Edw. 7. c. 57. s. 3. 16 & 17 Geo. 5. c. 17.

14.—(1) During the continuance of the Coal Mines Act, 1926, section three of the Coal Mines Regulation Act, 1908, shall have effect as if for the words "one hour" there were therein substituted the words "half an hour":

Provided that, if an application, by agreement between representative organisations of the owners of and the workers employed in or about the coal mines in any district, is made to the Board of Trade in that behalf with the approval of the Mining Association of Great Britain and the Miners' Federation of Great Britain, the Board of Trade shall make an order, which shall become effective forthwith, that the substitution of the words "half an hour" for the words "one hour" in section three of the Coal Mines Regulation Act, 1908, shall not

8 Edw. 7. c. 57.

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PART III. —*cont.*

apply as respects any mine in such district at which the daily hours below ground on an average taken over the twelve weekdays in any fortnight do not exceed the daily hours permissible under section one of the Coal Mines Regulation Act, 1908, as amended by the Coal Mines Act, 1919, by more than the extension of half an hour made under section three of the Coal Mines Regulation Act, 1908, as amended by the Coal Mines Act, 1926, and this section.

9 & 10 Geo. 5. c. 48.

At any mine where an extension of time is in any week made under the said section three, the workmen, by agreement between representatives of employers and workmen, may, notwithstanding anything in the Coal Mines Regulation Act, 1908, as amended by any subsequent enactment, begin their period of work on the Saturday of that week before twenty-four hours have elapsed since the beginning of their last period of work, so long as at least eight hours have elapsed since the termination thereof.

(2) This section shall come into operation at the expiration of the period of four months from the passing of this Act.

PART IV.

COAL MINES NATIONAL INDUSTRIAL BOARD.

Power to constitute Coal Mines National Industrial Board and functions thereof

15.—(1) The Board of Trade may by order constitute a Coal Mines National Industrial Board (in this section referred to as the "National Board") consisting of seventeen members appointed by the Board of Trade, so, however, that before appointing the members of the National Board other than the chairman, the Board of Trade shall consult the Mining Association of Great Britain as to six, the Miners' Federation of Great Britain as to six, the Federation of British Industries and the Association of British Chambers of Commerce as to one, and each of the following bodies as to one, that is to say—

The General Council of the Trade Union Congress;
The Co-operative Union;
The National Confederation of Employers' Organisations;

and the Chairman of the National Board shall not be a member of any of the bodies aforesaid.

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PART IV. —*cont.*

(2) Before appointing any person to fill a vacancy among the members of the National Board, the Board of Trade shall consult the body (if any) which they were required by this section to consult before appointing his predecessor. If a member becomes in the opinion of the Board of Trade unfit to continue in office or incapable of performing his duties under this Act the Board shall forthwith declare his office to be vacant and shall notify the fact in such manner as they think fit and thereupon the office shall become vacant.

A member may resign his office by notice in writing under his hand given to the Board of Trade.

(3) The Board of Trade may appoint a secretary to the National Board, and there shall be paid by the Board of Trade such remuneration (if any) to the chairman, such travelling and subsistence allowances to the chairman and members and such remuneration to the secretary of the National Board, and such other expenses of the National Board, as the Board of Trade, with the approval of the Treasury, may determine, and any expenses of the Board of Trade under this subsection shall be defrayed out of moneys provided by Parliament.

(4) Any agreement between the owners of, and the workers employed in or about, the coal mines in any district providing for the regulation of wages or other conditions of labour throughout the coal mines in the district may be sent to the National Board, and it shall be the duty of the National Board to record any agreement so sent.

(5) Where there exists, or is apprehended, any dispute between the owners of and the workers employed in or about the coal mines in any district as to the terms of a proposed agreement between such owners and workers providing for the regulation of wages or other conditions of labour throughout the coal mines in the district, and there has been a failure to settle the dispute in accordance with the arrangements existing in the district for the settlement thereof, either the owners or the workers may refer the dispute to the National Board who shall thereupon inquire into the dispute and report thereon to the owners and workers concerned.

(6) The Board of Trade may make rules regulating the procedure of the National Board, and those rules may, among other things, provide—

(*a*) for enabling the National Board to act notwithstanding any vacancy in their number;

(*b*) for the hearing of a reference in public or in private, at the discretion of the National Board.

(7) There shall not be included in any report or publication made or authorised by the National Board any information, obtained by the National Board in the course of a reference to them, as to any trade union or as to any particular undertaking, which is not available otherwise than through evidence given during the reference, except with the consent of the secretary of the trade union or of the owner of the undertaking in question, and if any individual member of the National Board or any person concerned in the reference, without such consent, discloses any such information, he shall be liable on summary conviction to a fine not exceeding one hundred pounds.

PART V.

GENERAL.

Application of 52 & 53 Vict. c. 49.

16.—(1) The provisions of the Arbitration Act, 1889, shall not apply to any reference to the Coal Mines National Industrial Board, except in so far as any of the said provisions may be applied by the rules made under Part IV of this Act.

(2) No scheme or rules approved or made under Part I of this Act shall exclude the application of the Arbitration Act, 1889, to any arbitration held in pursuance of that Part of this Act except in so far as that Act is inconsistent with that Part of this Act:

Provided that, where on any such arbitration an award is stated in the form of a special case for the opinion of the court under paragraph (*b*) of section seven of that Act, the decision of the High Court thereon shall be final.

Exclusion of 10 & 11 Geo. 5. c. 50, s. 4(3).

17. The expenses of the Board of Trade which are by this Act directed to be defrayed out of moneys provided by Parliament shall not be taken into account in

(6) The Board of Trade may make rules regulating the procedure of the National Board, and those rules may, among other things, provide—

(*a*) for enabling the National Board to act notwithstanding any vacancy in their number;

(*b*) for the hearing of a reference in public or in private, at the discretion of the National Board.

(7) There shall not be included in any report or publication made or authorised by the National Board any information, obtained by the National Board in the course of a reference to them, as to any trade union or as to any particular undertaking, which is not available otherwise than through evidence given during the reference, except with the consent of the secretary of the trade union or of the owner of the undertaking in question, and if any individual member of the National Board or any person concerned in the reference, without such consent, discloses any such information, he shall be liable on summary conviction to a fine not exceeding one hundred pounds.

PART V.

GENERAL.

16.—(1) The provisions of the Arbitration Act, 1889, shall not apply to any reference to the Coal Mines National Industrial Board, except in so far as any of the said provisions may be applied by the rules made under Part IV of this Act.

Application of 52 & 53 Vict. c. 49.

(2) No scheme or rules approved or made under Part I of this Act shall exclude the application of the Arbitration Act, 1889, to any arbitration held in pursuance of that Part of this Act except in so far as that Act is inconsistent with that Part of this Act:

Provided that, where on any such arbitration an award is stated in the form of a special case for the opinion of the court under paragraph (*b*) of section seven of that Act, the decision of the High Court thereon shall be final.

17. The expenses of the Board of Trade which are by this Act directed to be defrayed out of moneys provided by Parliament shall not be taken into account in

Exclusion of 10 & 11 Geo. 5. c. 50, s. 5 (2).

A.D. 1930.

PART V. —*cont.*

computing the amount of the expenses of the Department of Mines for the purposes of the limit imposed by subsection (2) of section five of the Mining Industry Act, 1920, upon the expenses of that department.

Interpretation.

18.—(1) In this Act the following expressions have the meanings hereby respectively assigned to them:—

"Class," in relation to coal, means a class determined according to the nature of the coal or of the trade, industry or other category of consumer supplied, or according to whether it be supplied for use in Great Britain or for export to any other country:

"Coal" includes bituminous coal, cannel coal, and anthracite:

"Coal mine" means any mine or open working where the getting of coal (including for the purposes of Part IV of this Act, lignite or brown coal), is the principal object of the mining or quarrying operations:

"Disposal" in relation to a coal mine means the tonnage in saleable coal raised and weighed at the pit head at that coal mine, after deducting all coal to be used for the purpose of working the mine and all coal to be supplied free or at reduced rates for the use of persons who are or have been employed in or about the mine and the dependants of persons who have been so employed, and in relation to a district means the aggregate tonnage in saleable coal raised and so weighed at all the coal mines in the district after making the deductions aforesaid:

"District" means for the purposes of Part I of this Act a district mentioned in Part I of the Schedule to this Act, subject to any amalgamation or adjustment of districts under Part II of that Schedule; and for the purposes of Parts III and IV of this Act has the same meaning as it has for the purpose of the arrangements for the time being in force for the regulation of wages in the coal mining industry:

"Functions" includes powers and duties:

A.D. 1930.

PART V. —*cont.*

"Output" in relation to a coal mine means the tonnage in coal raised and weighed at the pit head at that coal mine, and in relation to Great Britain or a district means the aggregate tonnage in coal raised and so weighed at all the coal mines in Great Britain or the district, as the case may be:

"Owner" has the same meaning as in the Coal Mines Act, 1911. 1 & 2 Geo. 5. c. 50.

(2) The references in this Act to the London Gazette shall, in so far as any scheme or order relates to Scotland, be construed as references to the Edinburgh Gazette.

Short title, citation and extent.

19.—(1) This Act may be cited as the Coal Mines Act, 1930, and the Coal Mines Acts, 1887 to 1926, and this Act may be cited together as the Coal Mines Acts, 1887 to 1930.

(2) This Act shall not extend to Northern Ireland.

A.D. 1930.

Section 18.

SCHEDULE.

PART I.

DISTRICTS FOR PURPOSES OF PART I OF ACT.

Northumberland.
Durham.
Cumberland.
Lancashire and Cheshire.
Yorkshire.
Derbyshire (exclusive of South Derbyshire).
South Derbyshire.
Nottinghamshire.
Leicestershire.
Shropshire.
North Staffordshire.
South Staffordshire (exclusive of Cannock Chase) and Worcestershire.
Cannock Chase.
Warwickshire.
Forest of Dean.
Bristol.
Somerset.
Kent.
North Wales.
South Wales (including Monmouthshire).
Scotland.

PART II.

PROVISIONS AS TO AMALGAMATION AND ADJUSTMENT OF DISTRICTS.

1. If an application is made to the Board of Trade for the amalgamation of two or more districts, and the Board are satisfied that the application has been duly approved in accordance with paragraph 3 of this Part of this Schedule, the Board may by order direct that those districts be treated as one district.

2. If an application is made to the Board of Trade by the owner of a mine situate in any district that the mine should be treated as if it were situate in any other adjoining district, and the Board are satisfied that the application has been duly approved in accordance with the next following

paragraph and that the mine has, for the purpose of the arrangements in force for the regulation of wages in the coal mining industry, been customarily treated as a mine situate in that other district, the Board may by order direct that that mine shall be treated as situate in that other district.

3. An application shall not be deemed to have been duly approved for the purposes of this Part of this Schedule unless it has been approved as respects every district to which the application relates by the owners of coal mines which produced more than half the output of those districts respectively, during the period of six months ending on the thirtieth day of June or the thirty-first day of December last preceding the date of the application, whichever day is the later:

Provided that if in the case of an application made before the first day of January, nineteen hundred and thirty-one, it appears to the Board of Trade that during such period of six months as aforesaid the output of a substantial number of coal mines in any district was subject to regulation under any arrangements made by a voluntary association or otherwise, the Board may treat any application submitted to them which relates to that district as if the latest period of six months during which the output of those coal mines was not so regulated had been the period mentioned in the foregoing provisions of this paragraph.

4. If for the purpose of the arrangements for the time being in force for the regulation of wages in the coal mining industry any adjustments are made in the districts specified in Part I of this Schedule, the Board of Trade may, if they think fit, by order direct that corresponding adjustments shall be made for the purposes of Part I of this Act, and upon the making of any such order, Part I of this Schedule shall have effect subject to any modification specified in the order.

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[fol. 1133] DEFENDANTS' EXHIBIT 43

3. Special Recommendations of the Board.

Reviewing the committee's report, the Board calls particular attention to the following points:

The immediate outlook, as far as the national resources in minerals are concerned, is for abundant supplies available at low prices, lower, in many cases, than those prevailing in the twenties. There is no sign that any serious limiting factor will emerge among the minerals to prevent the Nation from attaining a production of goods and services far above the levels of even 1929, say, for the next 10 years. The minerals for which we lack domestic deposits can be imported from abroad in any volume needed. The immediate problem of our major domestic industries is not a shortage but an unmanageable surplus, much like the surplus in agriculture. As in agriculture also, the surplus is resulting in heavy capital loss and depression of living standards. Few groups in our population have suffered greater hardships than the coal miners. Relief of these conditions is an immediate and pressing social problem.

The long-time outlook in the field of mining, on the other hand, is for increasing costs through exhaustion of the rich and more accessible deposits. The situation varies greatly in different minerals, but, in general, depletion is much further advanced than is generally realized. Known supplies of oil, natural gas, and certain of the metals (ores of present commercial grade) are sufficient for, at most, a few decades. Even in coal mining, the life of certain districts producing our finest coals is limited to about 85 years at normal rates of production. In both metals and fuels the reserves are sufficiently limited so that waste can no longer be tolerated. The long-time problem of the minerals is conservation.

At first thought the immediate problem of the surplus and the long-time problem of conservation seem to be in conflict. Actually they are due to the same fundamental cause—the destructive competition characteristic of scattered ownership and overdevelopment of productive capacity. Resource waste is most serious in those very industries with an unmanageable surplus. In oil and gas, the wastes are proverbial. At the present time in one field,

enough gas is being blown into the air to supply all domestic consumers in the United States. In bituminous coal mining the avoidable loss is placed at 20 percent. Such wastes are seldom the fault of the individual operator who has small choice under existing competitive conditions. As described in the report of the technical committee, the wastes of fuel present a grave national problem. Avoidance of waste is partly a matter of technology. But very largely the prevention of waste is a legal and economic problem. As long as bituminous coal mining functions in surroundings of poverty, the operator has neither the incentive nor the means to prevent waste. The first and indispensible step to the solution of either the short-time problem of too many mines and miners or the long-time problem of preventing waste, is to place these industries on a basis of economic stability.

The States can do much in the prevention of waste. Through exercise of the police power, the States have the [fol. 1134] constitutional authority to prohibit wasteful methods of mining, just as they have the authority to prescribe safety regulations. In the last 10 years, several of the States have made attempts to control waste in the production of oil and natural gas, which have in general been sustained by the courts. So far only a beginning has been made, but enough has been accomplished to show the possibility of replacing the wasteful rule of capture with a requirement of unitary development of the individual pool. In time, similar prohibitions of waste may be extended to coal mining. Progress in this direction can go no faster than the development of public opinion within the great mineral States. In the past, local opinion supporting such regulation has been held back by the depressed and profitless condition of many enterprises and by the competition between producers in different States. The slightest increase in production cost, caused by a local conservation law, might handicap the local industry. Similarly, the control of production by one State has been virtually impossible for lack of similar action in competing States, regardless of whether the purpose of control was to prevent waste of resources or to protect capital and living standards. The necessary prerequisite to encouraging action by the States is economic stability and some limitation on destructive competition between the States. Interstate

compacts for this purpose should be encouraged, but are likely to call for complementary action by the Federal Government. In the mineral field, the problem of balancing supply and demand is essentially national and requires assistance of the National Government.

The chief service which the Federal Government can render in either the long- or the short-time problem is to assist the mineral industries to attain economic stability. Stabilization is necessary to preserve capital, to maintain reasonable wage standards and steadier employment, and to minimize resource waste. Stabilization requires a central organization and collective action. It may also require permitting control, under public supervision, of production, capacity stocks, and sometimes of price, in ways which have traditionally been thought forbidden by the antitrust laws. Such control of competitive practices seems clearly necessary in the bituminous coal, oil, and natural gas industries. Some measure of control may also be found advisable in certain of the metals such as copper, lead, and zinc. In the case of oil, special legislation authorizing the fixing of State production quotas appears to be necessary.

Experience under the N. R. A. codes has shown the beneficial results of control and also the lines along which future action might be guided. Control of sales or of production is authorized by some of the metal codes; control of production and price is authorized by the oil code though up to the present production only has been dealt with. In the bituminous coal code the instrument of control selected is the minimum district price. Despite numerous shortcomings, which are summarized in the committee's report, the codes have yielded impressive benefits. In coal mining, especially the control has kept prices above production costs, wages have been greatly increased, and employers, now able to pay the wage, have taken a different view of labor relations. In most of these industries, majority opinion appears to favor a continuation of some form of control.

The limited occurrence of many minerals is known to invite concentrated ownership, in some cases creating natural monopoly. In other cases, concentrated control is effected by control of patents, reduction plants, fabricating capacity, marketing facilities, or exceptional technical and managerial ability. Despite certain economies of centralized ownership, the consumer is right in feeling that unless an

industry is operating under public regulation, competition is necessary to assure a fair price. While control of production and price presents grave difficulties in manufacturing and the service industries, the Board feels that it should be permitted, under appropriate public supervision, in natural resource industries where competition is known to be forcing serious waste, and where control can be shown to offer some improvement.

We therefore recommend that permanent provision be made to authorize control of competition after the expiration of the present National Recovery Act. We shall not attempt to outline the specific steps applicable in each industry, but, in general, the authorization should cover the control of production, of capacity, of surplus stocks, and where necessary, of price. The choice of specific methods of control is a technical matter, which should be left as far as possible to the supervising authority, acting in council with the industry concerned. From the point of view of the consumer the choice of methods makes little difference, since any minimum price, if observed, necessarily affects production, and any control of production necessarily affects price. The authorization of control should be made contingent on acceptance of whatever safeguards are thought necessary by Congress to protect the interests of the mine workers and the consumer, and upon assurance by the industry concerned that action will be taken to minimize resource waste.

It should not be the intent of such limitation to create monopoly profits nor to subsidize inefficiency, the consumer interest must be protected through effective representation. Equally labor must be protected in its right of organization, and advanced in its standards of living and of working conditions. Among the pressing needs of the workers is greater continuity of employment. The labor interest also [fol. 1135] requires and the Committee recommends that the National Planning Board shall concern itself with the rehabilitation of stranded mining populations, presumably in connection with other programs for land utilization, construction or industrial development.

Supervision of such plans for production control could be lodged either under a separate mineral code division of a permanent N. R. A. or under a separate mineral industry division of the Interior Department. In the case of oil and

coal, separate acts may be necessary to provide for special problems, such as crude oil quotas or purchase of marginal mines, but supervision should be placed under the same general auspices as other mineral codes. The important point, in the Board's view, is to recognize that the special problems raised by the waste of irreplaceable resources necessitate separate consideration.

To facilitate the adjustment of production to requirements, periodic forecasts of consumption should be made by a Government agency in collaboration with representatives of producers and consumers.

The Board further recommends that in any legislation for the stabilization of the mineral industries, consideration should be given to the possibility of retiring marginal mines now in operation.

To supplement the economic attack on waste, the Government should promote scientific research and foster mineral technology. The day of easy discovery of surface outcrops by the old-time prospector is past and the burden of overcoming the growing difficulties of mining falls more and more upon science and engineering. The great advances made during the last 20 years suggest the future savings which may be hoped for in this quarter. The invention of flotation has recovered great amounts of metal, formerly wasted because it could not be separated. Progress in oil technology has trebled the maximum depth of drilling. In power generation the fuel engineers have cut the consumption of coal per kilowatt-hour from 5.3 pounds to 1.5 pounds. The major contributions will doubtless continue to come from private sources, but the Government, through the Geological Survey and Bureau of Mines, should carry on fundamental research, testing and standardization; should aid in developing new methods of exploration such as use of geophysical instruments, and in improving methods of mining and metallurgy. Better maps and more thorough inventories of the national resources are needed. All these services should be maintained and strengthened.

Hazards to life and limb are still excessive, despite progress in the prevention of mine accidents. Since the welfare of the worker is the concern of all agencies of government, the health and safety of miners must be considered as part of any general plan. The task of those leading the safety movement is made easier because of the economic losses

incident to hazard. Federal work in this field should be maintained and strengthened. The United States now has the highest mine accident rate of any country except Chile.

In addition to these immediate steps, there is need of continuous study and review of national policy in relation to the minerals, and of the results obtained. This might well be carried on by a permanent mineral policy committee working in cooperation with the National Resources Board. The present committee is already studying a number of special problems centering around mine taxation, tariffs, foreign trade, capacity, and reserves concerning which recommendations will be made later.

[fol. 1136] 43-A

Section I

The Need of a National Policy

The United States leads the world in variety and abundance of its mineral deposits. No similar area contains as great a number of mineral deposits of such large size, high grade, and easy accessibility. It produces about 40 percent of the value of the world mineral production from within its own borders, and its commercial control of mineral resources in foreign countries brings its proportion of the world total up to 50 percent. It has shared with the British Empire in the exploitation of over three-quarters of the world's minerals. Through its use of mineral fuels and water powers, it produces nearly half of the mechanical energy of the world. Minerals account for about 40 percent of the value of the annual product of natural resources in the United States, which include its agriculture, forests, and water powers. In 1929 the mineral industries employed more than a million men and reported products to the value of nearly 6 billion dollars.

Mining is the stepchild of our economy. Rightfully it is coordinate with agriculture and manufacture; actually, it receives insufficient attention. Ours is the age of the power machine and the minerals furnish both the power and the machine. Not only is the United States the largest producer of minerals; it is also the largest consumer. Our per capita requirements of metal and fuel far exceed

those of any other nation. Until recently consumption has increased like a sum at compound interest, so that in the last 30 years we have used more oil and coal, iron, and copper than in our entire previous history. While the rate of increase slowed down after the war and while consumption is now reduced by the depression, the future of our industries depends on an abundance of cheap metal and cheap fuel.

In the happy stage of skimming the cream of the resources, the Nation has taken its abundance of mineral supplies as a matter of course. But as we pass into the stage of maturity it is evident that the spend-thrift habits and impetuous expansion of the pioneer days must give way to a more orderly and less wasteful development. The great mineral industries of the United States have been built up through individual initiative, with little social direction or control. Until recently it has been assumed that private enterprise required no guidance in developing the national resources and needed no help from Government. The World War, however, made people acutely conscious of their dependence on the minerals, and in the case of the fuels led to an elaborate machinery of wartime control. Following the war expansion came a difficult readjustment. Abroad, our trade in minerals was disturbed by the tide of economic nationalism, expressed in the spread of public controls of one kind or another. At home, coal, oil, and certain of the metals struggled with an unmanageable surplus of plant capacity. The difficulties of the mineral industries were brought to a crisis by the great depression.

The situation calls for review, to see whether it warrants better coordination of national policy in the public interest. The following report considers this question.

We shall make no attempt to discuss the many economic and social conditions that affect mining in common with other industries. The Nation's interest centers very largely around the 1,000,000 men and their families who are dependent on the mines for a living. The public is rightly concerned with the arduous life of the mine workers, their isolation, and their long struggle for the right of collective bargaining; with the immense fluctuations in employment; with living conditions that are sometimes healthful and comfortable, yet sometimes miserably poor.

The committee is informed that the questions of employer-employee relations and of economic security for the unemployed and the aged are being considered by other agencies and are outside its terms of reference. We cannot, however, forbear a consideration of the stranded populations in some mining districts or of the special problem of health and safety. In general, the task assigned to this committee deals with mineral technology and markets. Yet the economic stability which we find the most urgent first step in preventing resource waste is also a prerequisite to ameliorating the lot of the mine workers.

Our discussion is concerned primarily with questions of policy arising from the inherent characteristics of mineral resources. Among these characteristics are: (1) That minerals are exhaustible and nonreproducible; (2) that some minerals do not exist in the United States in quantities adequate for national welfare; (3) that others exist in present surplus; (4) that geographic distribution is fixed by nature and cannot be changed by enactment, thereby determining trade routes and trade areas, both domestic and foreign; (5) that there are special hazards, both physical and economic, in mining; (6) that closing down a mine may result in losses far more serious than closing down a factory. The outstanding public problem arising out of these conditions is that of conservation. By conservation of minerals, we mean not hoarding, but orderly and efficient use in the interest of national welfare, both in war and peace, without unnecessary waste either of the physical resources themselves or of the human elements involved in their extraction.

The task in mineral conservation now before the Nation is to take up and carry forward the work begun under the leadership of President Theodore Roosevelt 30 years ago. The original conservation movement had two major objectives: (1) Protection of the public domain against despoiling by private interests, and (2) prevention of physical waste. Indignant at the frauds and evasions practiced under the old land laws, the friends of conservation attacked the first objective with zeal and vigor. Unappropriated mineral-bearing lands (except for the metals which were open to location as before) were withdrawn from settlement pending their classification and the enactment of new legislation. After prolonged debate, Congress passed a group of leasing acts, including the Alaskan coal

land act of 1914 and the mineral leasing act of 1920, opening deposits of coal, oil, gas, phosphate, and salines on the public domain to prospecting and leasing with payment of royalty to the United States. With the passage of these laws, the first objective of the conservation movement was largely attained, so far as minerals were concerned, though there will always remain the task of vigilant and courageous administration.

But with respect to the second objective—the prevention of physical waste—much remains to be done. Great and encouraging savings have indeed been made by engineers and scientists. Thus, the invention of the process of flotation has recovered large quantities of metal formerly wasted. In the production of oil, the technical men have learned how to cement wells against infiltration of salt water, how to utilize the lifting power of the imprisoned gas to increase the yield of oil, and have carried the maximum depth of drilling from 3,000 to 10,000 feet. The cracking process has doubled and trebled the percentage of gasoline obtainable from the crude. In the field of power generation, the fuel engineers have reduced the average consumption of coal from 5.3 pounds per kilowatt-hour in 1908 to 1.5 in 1933. These and other brilliant technical achievements have made available deposits formerly considered unminable and have greatly prolonged the life of our limited reserves. Among other things, they have shown the wisdom of conservation, for a barrel of oil saved for use today will generate four times as many horsepower-hours of work as it could have done 30 years ago.

But, as regards the waste of resources associated with the economic organization of mining, inadequate progress has been made. The waste of gas, oil, and coal now going on which is directly ascribable to the destructive competition characteristic of these industries, deserves the measured use of the word "intolerable." These wastes are not due to lack of engineering knowledge—our mining engineers and oil technologists are the best in the world. They are due rather to continuance of the literal application of the rule of competition to the development of these resources, and also, the special case of oil and gas, to the conflict between in the legal facts of surface ownership and the natural facts of geology. The present-day problem of conservation is to encourage an organization of industry that will control competitive waste. It involves, in

the case of oil and gas, using the States' police powers to prohibit preventable waste and substituting the principle of the equitable share in the common reservoir for the judicial "law of capture." It involves permitting the control of production, stocks, capacity, and perhaps of price, under public supervision, by methods hitherto thought to be forbidden under the antitrust laws. The Nation must learn that the rule of uncontrolled competition applied to certain resources leads to excessive waste. The greatest single task of conservation is to insure economic stability in the mineral industries.

There is a wide-spread impression that waste is a thing of the past. Every school boy is taught how our pioneering fathers burned natural gas in great open torches 50 years ago. In point of fact, the wastes of that time were probably small compared with what is going on in the month of October 1934. As this report is written, in one field of the United States, a billion cubic feet of natural gas is being blown into the air daily. That is gas enough to supply the United Kingdom twice over. It is forty times as much gas as all the Scandinavian countries use together. It is almost enough to supply every householder in the United States now consuming either natural or manufactured gas. The only use made of this particular gas is to strip it for the tiny fraction of gasoline which it contains, and this at a time when the supply of gasoline from other sources is already so great that measures to limit production are thought to be necessary. Similar wastes, though fortunately on a smaller scale, are going on in other gas fields and in other industries, to which we shall later refer. It is probable that during the time it would take the ordinary person to read over this report, enough fuel will have been wasted in our gas and oil fields and coal mines to keep at least 10,000 relief families warm during the coming winter.

Were our resources unlimited, such losses might seem excusable. The facts are otherwise. Despite the difficul- [fol. 1137] ties of estimating reserves and the shortcomings of some past efforts, it is the consensus of geologists that the principal mineral regions have now been found; their general extent is known; in many cases their size has been measured. The geologic and geographic limitations upon further large developments are becoming fairly defi-

nitely understood. The rapid increase in the scale of production in the last few decades brings a new perspective into our judgment as to what constitutes adequate reserves. It is now established beyond reasonable doubt that the United States is deficient in many minerals necessary for industry, both in respect to present and to future requirements; that for others the supply is limited to a decade or a few decades; that, aside from the building materials, only a few of the minerals, such as coal and iron, exist in quantities sufficient to supply the Nation for long periods of 100 years or more, and even these are more limited in regard to the higher grade reserves. Present overdevelopment of some minerals has tended to obscure the central and dominant fact that, in relation to what we hope will be the life of the Nation, our mineral supplies are too limited to excuse the wasteful exploitation that now often prevails.

In approaching the problem of a national mineral policy, the committee starts with recognition of the fact that private industry has successfully developed the minerals of the United States to an extent never before approximated in the world; that the job on the whole has been done efficiently and without greater wastes or mistakes than were more or less inevitable under existing conditions of enforced competition and widely scattered ownership of the resources; that the desire for efficiency and profit has been mainly responsible for the great gains in conservational practice already made; that the nature and immense diversity of the problems—scientific, technical, economic, and social—have required a variety, elasticity, and boldness of attack scarcely possible under bureaucratic control, even if it be assumed that such control were competent, honest, and not hampered by shifting political currents. American consumers have been furnished the cheapest fuel and some of the cheapest metal in the world. The output per worker in the mines of the United States is generally far higher than in foreign countries. We believe that the record of the mineral industry in the United States warrants the presumption that it should continue to develop under private initiative. However, we also believe that mineral reserves are vested with a public interest which justifies extension of public supervision to those specific conditions affecting our mineral industries, which are dis-

tinctly detrimental both to the public and to the industries themselves, and which seem beyond the power of the industries themselves to remedy.

Soon after the passage of the National Industrial Recovery Act, several of the mineral industries embraced the opportunity to undertake collective action, under the public guidance and supervision afforded by the new law. Problems were taken up, in cooperation with the Government, which either because of the prohibitions of the anti-trust laws or because of economic conditions associated with the depression had proved beyond their own capacity to master. It is mainly the conservational aspects of these questions that the committee has in mind in its discussion of possible extension of public regulation or control, Federal or State. By public control we mean not so much the forcible public interference with private business, as the addition of safeguards and powers to enable industry itself to act collectively, where necessary, in order to avoid the wastes, physical and social, of destructive competition.

Many agencies of Government, Federal, and State, permanent and emergency, touch the problem of conservation in one way or another, and progress has been made in the solution of the problems of individual industries. The various agencies now attempting to formulate a national program for land use are necessarily giving some thought to the minerals. The National Industrial Recovery Act is designed, among other things, to conserve natural resources, as well as human resources, and notable progress has been made in conserving oil. However, only a start has been made. Neither the N. R. A. nor any other agency has worked out the guiding principles, and naturally there is no consistent plan common to all of the agencies. The complex inter-relationships of minerals have scarcely been considered. No individual policy for coal, oil, or gas, for instance, can be worked out or administered without consideration of their inter-relations in a highly competitive fuel market. The same is true of the shifts in demand and the substitutions which are taking place among the major metals. A similar lack of a unified approach characterizes our activities touching minerals in the foreign field. All agencies of the Government dealing with foreign trade, or with national defense, are concerned with the minerals, yet policies hitherto have all too often been haphazard and

even contradictory. Tariffs and reciprocal trade agreements, commercial treaties, foreign concessions and investments, the American attitude toward the "open door", all need review in the light of our present supplies and future reserves of the minerals.

Long-range considerations will dominate the discussion, though the special conditions of the depression cannot be overlooked. We shall consider first the problems raised in the domestic field, and then take up those in the foreign field.

[fol. 1138] 43B

Section II

III. Conservational Problems Arising From Surplus of Production or Plant Capacity

1. Conservation and Production Control

Foremost among the problems of conservation is the prevention of resource waste and associated social and economic disorder caused by the destructive competition characteristic of those minerals with a surplus of plant capacity or production. It may seem a paradox but it is a fact that resource loss is most serious in the same industries, such as coal and oil, where attention at the moment is centered on the disposal of an embarrassing surplus. In this group the problem of conservation is less one of technology than of economics. The task before the Nation is to help these industries to prevent competitive waste, bring supply in balance with requirements, stabilize employment, limit cut-throat competition, and by achieving some measure of stability, permit the savings in the underlying resource which technology has already shown to be possible. It involves considering the control of production, of capacity, of stocks, and often of price by methods which traditionally have been thought forbidden by the anti-trust laws. It involves recognition of the competition between mineral industries, as in the fuel and power group, as well as within them.

While it is clearly inadvisable to authorize price-fixing and limitation of output in the great majority of our indus-

tries, such as general manufacturing and trade, it may prove to be wise, under the necessary public supervision, in those industries involving natural resource waste. Even during the present emergency, the N. R. A. has recognized a distinction between business in general and industries involving a problem in conservation. The Nation must learn that in some circumstances competition leads to waste that we can ill afford.

A review of the mineral industries shows that troubles of surplus are widespread, but most acute in coal and oil. They are present, though less acute, in iron, copper, lead, and zinc.

While there has been large overdevelopment of iron ore capacity, there has been no difficulty in holding production reasonably in line with consumption or in stabilizing prices, because of the fact that nearly all of the mines are captive and also because of the concentration of ownership in a few companies. These companies will take a large loss, because their overestimates of future demand have led to a great excess of mine capacity. However, it is not apparent that Government cooperation is needed to effect conservation of the resources, though it may be needed for rehabilitation of unemployed workers and safeguarding the welfare of labor. Problems of the type involved in the concentrated ownership of the mines are discussed in section II, V.

For the other five—coal, oil, copper, lead, and zinc—experience has thus far shown that the industries acting alone have been unable to prevent dissipation of resources or economic and social distress. Already, under the National Industrial Recovery Act, several of these industries are asking Government approval of various measures designed to stabilize supply and price, to control excessive stocks, or otherwise to set bounds to competition. Their leaders desire to continue the effort at stabilization in some form, and it is in the public interest to encourage them to do so. Each of the five listed has its own distinctive problems, sharply differing from those of the others, but all present in some degree the common problem of control of destructive competition.

2. Bituminous Coal[1]

Need for Stabilization: The mineral fuels are subject to a high degree of substitution and inter-industry competition. The bituminous-coal industry, as the oldest and most important source of energy, has suffered loss of markets to oil, natural gas, and water power. Competition within the industry has always been intense because of the widely scattered reserves and the thousands of producing units. Rivalries between districts and the legal obstacles of the antitrust laws have hitherto prevented any form of centralized organization.

Lack of adequate profits has meant inadequate wages and excessive waste of coal resources. For years the industry has worked in surroundings of poverty. Coal was therefore one of the industries which could gain the most from the facilities for collective action offered by the National Industrial Recovery Act. Its experience under the Bituminous Coal Code indicates that continuation of some form of price or production control is necessary to effect the stabilization of this industry.

Stabilization of the coal industry is needed to protect capital. In 1929, according to the Treasury Statistics of Income, there were 1,437 bituminous-coal companies, pro- [fol. 1139] ducing approximately 46 percent of the total output, that operated at a loss, and their deficits exceeded the income of the companies making a profit, so that the industry as a whole reported a net loss even during that year of boom. Virtually no other business covered by the Treasury's record showed such widespread money losses as the mining of bituminous coal.

Stabilization of the industry is needed to protect wage standards. The pressure of low prices upon wages in coal mining is direct and cruel. Whereas in manufacturing wages constitute 23 percent of the cost of the product, in coal mining they make up 65 percent. Any savings the operator can make in supplies, in power, in overhead, look small in comparison with the wage cost, and the pressure

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[1] The statements in this section refer only to the mining of bituminous coal. The mining of Pennsylvania anthracite is a separate industry, not here considered. The retail coal business is outside the terms of reference of this committee.

to reduce wages in periods of low prices is almost irresistible. Hence arises on the part of the mine workers the insistent demand for collective bargaining. Fifty years of bitter experience has proved beyond question that underlying the turbulent history of labor relations in this industry is the competitive pressure which often made it difficult or impossible for the employer to pay a decent wage or earn a profit. The record of the years from the end of the Jacksonville wage agreement to the signing of the N. R. A. code (from 1927 to 1933) is proof of the depths to which wage cutting can go, and unless some means is found by which a reasonable margin of profit can be assured in the future, resistance to trade unionism can be expected to return as before, and maintenance of any such wage structure as is developed by the code will become impossible.

Stabilization of the coal industry is needed to minimize waste of the resource.

In western Europe the average loss of coal in the mining of the beds now worked is from 5 to 10 per cent. In the United States, according to careful field studies in 1923 by engineers of the Bureau of Mines and the United States Coal Commission, the average loss is 35 percent. Of this loss, 15 percent was considered unavoidable and 20 percent as avoidable, using the standards of engineering already shown to be feasible by the practice of the better companies. This meant that the avoidable loss amounted to 150 million tons a year, left behind under conditions that virtually prevent its being recovered.[2] That is coal enough to supply the entire requirements of the German Reich. In terms of energy it is equivalent to twice the production of natural gas in the United States. Conditions have since grown worse. Howard N. Eavenson, now president of the American Institute of Mining and Metallurgical Engineers, testifying in the Appalachian Coals case (August 1932) stated:

The depressed condition in the coal business has had a great deal of effect on the waste in the mining of coal. Since the depressed condition of the last 7 or 8 years, a good many mines [that is, in Appalachian territory—a re-

[2] George S. Rice and J. W. Paul. Amount and Nature of Losses in Mining of Bituminous Coal. Report of the United States Coal Commission, pp. 1855-1858.

gion where normally the recovery is relatively high] have found that it is very much cheaper for them to lose a very considerable proportion of the coal in the ground than it is to try to mine it. In other words, instead of recovering 85 percent or more, a number of them have gone to a practice where they will not get ultimately more than from 60 to 65 percent, because the ultimate result is cheaper than if they tried to mine the greater amount of coal. I think I could make the broad assertion that there is not a single bituminous mine in the country today that is not mining the very best coal that it has, and the cheapest, and is allowing portions of the mine to get into shape where a lot of the coal will never be recovered, because they cannot afford, at present prices, to mine it.

According to Newell G. Alford, from 1923 to 1932 a total of 4,802 bituminous mines were shut down or abandoned.[3] Some of these were worked out, but unfortunately, exhaustion accounted for but a small percentage of the mortality. The great majority of these old pits are not likely to be reopened. The quantity of coal lost in these old workings through collapse of roof, crushing of pillars and stumps, or through permanent isolation of odd acreages of unmined coal is unknown but must certainly run into some hundreds of millions of tons. Were these mines located in Belgium the loss would be regarded as a national calamity.

In the United States we are prone to ignore the loss in mining because coal seems so abundant, but the facts are that while our reserves of lignite and low-grade bituminous are indeed enormous we are exhausting our best bituminous coals at a rate that makes their conservation a serious national problem. For example, with production at the 1929 rate, the life of the magnificent Pittsburgh bed in Pennsylvania is limited to a hundred years, and the high-

[3] Alford's study included some wagon mines, but on the other hand, it did not cover Ohio or the trans-Mississippi fields. The total shut-down was therefore even greater than the figure quoted. Transactions of the American Institute of Mining and Metallurgical Engineers, vol. 108, pp. 476-488.

grade portions of the seam in the gas and coking coal districts will be gone long before that.

In the famous smokeless fields of southern West Virginia, the reserves in beds of commercial thickness are placed by Eavenson at 4.8 billion tons, which, at the 1929 rate of production, would last but 85 years. The same authority states that the highest grade gas and metallurgical coals are 11 percent exhausted in Kentucky and 22 percent exhausted in southern West Virginia and Virginia. Yet these coals, the Pittsburgh bed in Pennsylvania and the southern low- and high-volatile metallurgical coals, are the foundation of the American steel industry and their depletion will handicap not only steel itself but all industries depending on steel.

The causes of the excessive waste attending the mining of our coals are complex, but the great underlying cause is destructive competition. The losses are nobody's fault in particular, for the individual operator is driven by economic pressure. In many cases the prevention of loss, while entirely possible from the point of view of engineering, involves a substantial increase in cost. Thus, in portions of the Middle West the removal of pillars would result in damage to the surface. In such cases it may be many years before a change in present practice is possible. But there remain many other losses which can be avoided with slight additional expense as the practice of the better companies in normal times has already shown. Prevention of such losses depends on relieving the conditions of poverty which have surrounded the industry. The members of this committee who have given most thought to the question are convinced that the necessary first step in reducing the waste of coal in mining is to aid the industry in establishing itself on a stable and profitable basis.

Experience has shown that a reasonable margin of profit stimulates conservation. The more valuable coal becomes, the more men tend to save it. (It is true that if wage rates advance more than prices, reducing the operator's margin, the effect may be anticonservational.) A financially stable company can afford competent engineers and adequate supervision: that is an important factor, since large tonnages are lost in squeezes due simply to lack of engineering control. It is known, for example, that the captive mines, freed from the extreme pressure of competition, generally

secure higher extraction than the average commercial mine in the same district.

Reduction in waste may also be expected from other results of a program of production control. A check upon new development will prevent the premature abandonment of mines before they are worked out, thereby eliminating in the future losses such as those resulting from the closing of the 4,802 mines above referred to. With some check on the expansion of capacity, steadier operation of the mines remaining will ensue, thereby increasing the percentage of extraction. It is well known that recovery of pillars depends on maintenance of a regular breakline and a systematic schedule of operations, and some part of the present waste is due to the simple fact of irregular and intermittent operation.

Moreover, if reasonable prices are made possible, the coal industry may be asked to give assurance of reducing the waste. It would, for example, be possible for an N. R. A. code authority to study the problem and set up a local technical committee on conservation in each of the mining districts, charged with the duty of formulating reasonable standards of extraction as indicated by the better practice attained in that district. Such standards could then be recommended to landowners for incorporation in coal leases, to the mine inspection and conservation departments of the States, and to individual operators for adoption by their engineering staffs.

In time, if the industry can be placed on a stable basis and competition between districts held within reasonable bounds, the legislatures of the coal-mining States may be expected to enact conservation laws to lessen waste of their coal resources analogous to those already adopted in some jurisdictions for oil and gas. Hitherto, State action has been impossible, because of cut-throat competition. Progress in this direction can go no faster than development of a strong opinion within the principal coal States. Meantime, the first and indispensable step is so to organize the economic forces of the industry as to relieve the extreme pressure of competition.

These considerations, the exceptional money losses of operators, the protection of wage standards of a depressed group of workers, and the prevention of resource waste justify governmental aid in the effort toward stability which the industry alone is unable to accomplish.

Stabilizing Effect of Price Control Under the N. R. A. Code: In the case of bituminous coal, the N. R. A. code authorizes the direct control of prices. The choice of the minimum price as the instrument of control in the code was dictated by market mechanics and industry psychology. Had the framers of the code attempted to set up a system of rigid production quotas, they would have become involved in a welter of conflicting interests and local controversies. Centering attention on the direct control of price, they were able to formulate a code which won acceptance by all important districts and which could be put in operation at once. Aside from the labor clauses, price control is the central idea of the code. The code authority in each district sets the minimum price for every grade of coal mined in the district, and except as modified by the Administrator the price is binding on all shippers in the district. Under present conditions the minimum price also becomes the maximum price, in nearly all cases, since competition prevents the shipper from obtaining more than the minimum.

Despite numerous criticisms, the code has achieved a great measure of success. Criticisms of delay on the one hand and of over-hasty action on the other are natural in so new and so large an undertaking. Complaints of discrimination are heard from individual producers. Correlating price differentials between competing districts has proved difficult. Evasions threaten to reach grave proportions unless the power to force compliance is upheld by [fol. 1140] the courts. Yet in comparison with the competitive chaos which preceded it, the code is a great achievement. For the first time in years prices have generally been held above production costs. Employers, now able to pay the agreed-on wage, have taken a different view of labor relations. Wage standards and working conditions in the East and South are better than for years past. This has been accomplished without unreasonable burdening of the consumer or serious curtailment of demand. Opinion in so large an industry is always divided, yet it is generally agreed that many features of the code should be continued. It is clear, therefore, that nothing should be done to handicap administration of the present code and that the experience gained under the code should guide any future attempt to adjust supply and demand in this industry.

The Case for Continuing Control: In the bituminous coal industry the outlook is not for a temporary emergency but rather for a long period of destructive competition and natural resource waste unless some continuing adjustment of supply and demand can be effected. In this industry the disadvantages of price and production control are less weighty, and they are offset by the public interest in conservation and in protecting the wage standards of the miners.

The problem of protecting the consumer against unreasonable advance in price is simplified in coal mining by the pressure of competitive sources of energy—oil, gas, and water power—and by the alternative offered to the larger consumers of opening mines for their own use. Industrial consumers already supply a fourth of their own requirements from mines which they control.

The objection that stabilization protects the inefficient producer loses some of its force in this industry where several thousand marginal producers (commercial mines, not wagon mines) had already been forced out of business before the great depression began. Any mine able to survive the years 1930 to 1932 has demonstrated a considerable efficiency. With deflation of the less efficient mines so far accomplished, the present time offers a unique opportunity to inaugurate production control.

The most serious objection to continued price control is the tendency under it to create more capacity, through development of new mines or reopening of old ones. There seems no answer to this objection short of providing some method of controlling the expansion of capacity, if permanent stability is to be attained.

Opinion in the coal industry is definitely in favor of continuing some form of price or output control after the expiration of the present code.[4]

Possible Forms of Price and Output Control: The minimum price concept of the present N. R. A. code and the tonnage quota concept developed first in Germany, tried later in England, and now proposed in many quarters for the United States, both have their strong points and their weaknesses, and both deserve consideration in any per-

[4] See Report of Special Legislative Committee of the National Coal Association, Oct. 27, 1934.

manent scheme of control. Thus, foreign experience makes use of both price and tonnage control, and while the American code began with the simpler idea of minimum prices, it shows some signs of moving in the direction of quotas. There are, however, grave difficulties on the American scene which would make the quota plan much harder to operate here than abroad. One of the most serious is the difficulty of applying a national system of quotas to the intrastate shipments which in some fields make up a large part of the business. The choice of method is a highly technical problem to be worked out step by step on the basis of experience by the code administration in counsel with the industry. From the consumers' viewpoint, the choice makes little difference, for any minimum price that is observed necessarily affects the tonnage and, conversely, any tonnage limitation necessarily affects the price.

Even should it be found impractical to set up a uniform national system of prices or quotas, it would be possible to authorize price or production control schemes in the several districts, to be operated through district sales agencies or other local associations, subject to coordination by a central public authority. In any case, a large measure of district flexibility is necessary to meet the great diversity of local problems characteristic of this industry.

Necessary Safeguards: Any plan for stabilization of production and price must provide ample safeguards for the welfare of labor and the consumer. The question of safeguards necessary to protect the rights and liberties of the mine workers is a special subject of great importance, which will no doubt be considered by other agencies of the Government and is outside the particular province of this committee. The issue of consumer safeguards requires, in our view, (1) complete and uniform records of costs, prices, profits, and margins, and (2) review of any scheme of price or production control by a public authority clothed with ample powers. If the producer is to be protected by minimum prices, the consumer may reasonably ask to be protected by maximum prices. No such interference with free competition as is proposed by the coal industry is conceivable without such safeguards, both because the public would rightly withhold its consent and because the powers of Government are necessary to prevent a small minority of firms from paralyzing the action of the majority, as the experience of the present code so clearly shows.

Possible Forms of Capacity Control: Already the industry is awaking to the fact that control of price or output is not enough and that it must also grapple with the control of capacity.[5] Coal mining was over-developed 20, 40, or even 50 years ago. In 1929 the bituminous coal industry was burdened with a huge surplus of plant capacity due to many causes and not simply to the World War. The excess capacity has been a prime factor in the cut-throat competition, the resource waste, the financial losses, the low wages, and the turbulent labor relations. The problem of capacity before the industry is two-fold—first, to reduce the present surplus and, second, to control unwise expansion in the future so as to prevent a repetition of past overdevelopment. The necessity of some check upon future expansion is suggested by the increase in small truck mines which has already taken place under the code.

The Committee has considered some of the chief suggestions that have been offered for control of capacity.

It has been proposed at times that a sliding wage scale or a guaranty of minimum employment be included in wage agreements between operators and the miners' union, in a way to encourage a shift of business from high-cost mines to those able to operate more steadily.

It has been proposed that promoters of additional mines —as distinct from replacement of worked-out mines—be required by the Federal Securities Commission to include a full statement showing that existing capacity in the industry is already more than sufficient in all proffers of securities addressed to the investing public. Such a plan should discourage some unwise promotions. A similar provision is already in effect as to public lands through an order of the Secretary of the Interior that the offering of coal lands for lease or granting of prospecting permits be recommended only on reliable information that there is an actual need for coal which cannot otherwise be reasonably met.

It has been suggested that extensions of common carrier railroads serving the coal fields should be controlled in the

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[5] Report of Special Legislative Committee, National Coal Association, Oct. 27, 1934. "As a permanent basis for a sound recovery in this industry some control of overexpansion of productive facilities should be established."

light of their effects on mine capacity. Under the Transportation Act a railroad desiring to construct a branch line must obtain a certificate of public convenience and necessity, and if the central coal authority found that existing capacity was sufficient and recommended against the extension, the Interstate Commerce Commission might withhold its approval. This would not prevent promoters of a new venture from building their own branch line down to the railroad and demanding a connection, but it should serve to discourage unwise development. It would obviously have no effect on the increasing number of mines served by motor trucks. It has been suggested that marginal mines be purchased by a governmental agency and shut down, a small tonnage tax being levied to pay the cost of the acquisition and to pay for rehabilitating displaced miners. Such a plan should do much to relieve the condition of the mine workers. It would afford steadier employment in the other mines remaining and would tend to center production in the lower-cost mines whose savings in overhead through steadier running time would go far to absorb the tax. This plan deserves most careful consideration, though its execution would have to be timed with reference to general relief and unemployment policies, so as to give reasonable assurance that workers discharged by shutting down the mines in question could actually be placed in other occupations. In further support of this plan, it is argued that where employment of coal miners is reduced by public hydroelectric projects, an obligation rests upon the public to rehabilitate the workers displaced.

It has further been suggested that such a tax be used to purchase reserve coal lands accessible to existing railroads and available for immediate development, these lands to be held as a national coal reserve and later leased as needed for payment of royalty to the United States. This plan accords with the Mineral Leasing Act of 1920, by which coal deposits on the western public domain no longer pass with the surface title but are leased under royalty. The plan provides a market for coal lands, thereby relieving the pressure on land owners to open more mines in order to meet taxes and interest, which, it is well known, has always been one of the most powerful causes forcing overdevelopment. To make the plan workable it would also be necessary for operating companies remaining in business to agree not to expand their own capacity beyond limits

approved by the central authority. Possibly this could be done by contract or by code agreement. If such agreement to control the expansion of capacity of operating companies is provided, the plan for a national coal reserve deserves most careful consideration. In this form it resembles the national forest reserves.

From this sketch of some of the proposals to deal with surplus mine capacity, it will be obvious that the problem is not simple and that any plan to be tried would require most careful study of its economic, technical, and legal features. Nevertheless, it may well be that the adoption of some of the steps here outlined or of other measures could prevent serious future inflation of capacity and its train of evils.

The committee, therefore, would commend the importance of capacity control alike to the industry, the mine workers, and the Government. We would urge the industry to remember that some limitations on the individual are necessary in any form of joint action. We would urge upon the public the great importance of the ends in view and feel that a friendly hearing should be accorded to any serious [fol. 1141] attempt by this industry to stabilize production and capacity on a national scale. Above all, we would counsel against a defeatist attitude. We cannot believe but that if the bituminous coal industry really desires to achieve economic stability there will be found both economic devices and constitutional powers sufficient for the purpose.

[fol. 1142] 43-C

Section II

XIII. Health and Safety

Mining has long been known as an occupation more hazardous to life and limb than almost any other major industrial pursuit and in many of its phases harmful health conditions are also encountered.

The miner carries on his occupation underground in confined places where it is difficult to maintain adequate lighting. Frequently the rock stratum overhead requires much care to prevent its crashing down on the worker who must be on the alert also to avoid relatively small rock falls that

often occur without warning. Powerful explosives—with all the risks that accompany their use—and machinery, operated under conditions usually much more hazardous than on the surface, have a regular place in the daily tasks; in addition, some mines give off explosive or irrespirable gases or may be subject to intrusion of dangerously large volumes of water. Rock falls, fires, explosions, asphyxiation, and machines take a large yearly toll in human lives and crippled bodies. Recent statistics compiled by the National Safety Council indicate that mining has much the highest accident rate, both in frequency and in severity, of all major industrial occupations. Moreover, we are the most backward major industrial nation in the matter of mine accident prevention, for the accident rate of the United States is exceeded only by that of Chile.

Prevention of accidents in the mining industry is a far more complicated problem than in surface industrial work, even of the more hazardous types, because the different elements which enter into possible accident hazards are much more readily ascertained above ground and action can be taken against them; also, errors in judgment causing accidents in surface industrial work usually affect but one or possibly a few persons, while in mines a human error may readily cause an explosion or other occurrence that may result in death for scores or even hundreds of persons.

In addition to the accident risk, various conditions in and around mines, usually in connection with the air which the worker breathes, have an adverse effect on health. Many deep mines have high temperatures, others have both high temperatures and high humidities, and some shallow mines are affected by outside climatic conditions. Some mines have harmful waters or gases while others are afflicted with dusts. Dust disease is the greatest health menace to the miner, whether in coal or in metal mines, and it is probable that more underground workers are incapacitated or die from breathing excessive amounts of dust than are killed by mine explosions and fires. While health is the greatest asset of any human being, it is of greater relative value to the miner because his occupation demands the possession of far more than ordinary endurance and command of faculties.

The sheer human tragedy of mine disasters with their heavy loss of life is the overwhelming case for an effective

mine safety program. Those who have seen the anguish in the faces of relatives stolidly waiting at the tipple for news of husbands and brothers entombed below know the urgency of adequate Federal efforts to reduce the human toll of the mines.

The immediate effect of accident and ill health is cessation or curtailment of income with consequent economic distress in the worker's family and additional strain on relief agencies. The average age of the coal-mine worker who is killed is 35 years, and his active life expectancy and potential income would be relatively good in most other industries. Miners and their families lose between $50,000,000 and $100,000,000 in income annually due to preventable accidents and ill health. While compensation payments may be received by the victims or their dependents as a temporary aid, in general the families of the sickly, crippled, or killed miners usually become largely dependent upon the public for support for several years after an accident, sometimes indefinitely.

Aside from the question of conserving human life and preventing suffering, mine accidents and unhealthful conditions increase the cost of producing mineral raw materials. Recent data indicate that 10 or more percent of the mine cost of producing coal or ore is due to various factors entering into accident occurrence; in the bituminous coal industry alone this amounts to between $30,000,000 and $50,000,000 per year. If already known and available improved safety methods and measures could be put into general use, the burden of accident expense could probably be reduced to as low as 1 or 2 percent of mineral production costs. The investment of a small fraction of the annual losses in workers' income and the increased mine costs in a larger program to curtail preventable accidents and ill health holds possibilities of at least a hundredfold return.

The difficulty in preventing accidents in and around the mines is well known and most countries have rather rigid regulations protecting the safety, and to a much less extent the health, of the workers in mining and allied industries. In the United States the Federal Government, through the Bureau of Mines, has led the mine safety campaign through extensive educative and cooperative safety programs, by training hundreds of thousands of miners in safety and first-aid practices, by the indirect improvement of mine machin-

ery to exclude unsafe features, and by constant investigations and research to point the way to improve safety practices. Under the Constitution, however, the authority for enforcement of specific safety measures at individual properties resides with the States, and most mining States have laws and agencies intended for safety promotion and enforcement. The State laws and regulations are usually a skeletonized outline of some of the fundamental minimum safety requirements and are often too general in nature to give adequate protection to the mine worker or even to the mine in terms of modern standards.

For many years progressive mining companies have not been satisfied to operate only within the meager safety requirements of the State codes and have adopted additional and more effective safety procedure of their own, although complying also with the State rules. As a result of this forward-looking policy, many of these companies have made great progress in the reduction of accidents. Many examples could be given of such laudable special safety efforts by companies in all branches of the mineral industry, including bituminous and anthracite coal mines, metal mines, nonmetallic mineral mines, coking plants, milling, smelting, and metallurgical establishments, and the various activities in connection with the production and processing of petroleum.

Over a period of 23 years the threefold cooperative efforts of mining companies, the States, and the Federal Government have saved the lives of 24,300 coal miners and eliminated 50,000 annual nonfatal accidents. Organized safety work received its impetus following the 5-year period 1906-10 when there were 84 major coal mine disasters and when coal mine fatalities reached the shocking total of 13,288, or a fatality of 5.89 persons killed per million tons of coal produced. Congress reacted to this situation by establishing the Bureau of Mines in 1910 which has constantly led the pioneer work on behalf of greater mine safety. The success of this movement can be measured by the decline of the coal-mine fatality rate from the high levels of 1906-10 to 3.31 accidental deaths per million tons of coal produced in 1931, 3.36 in 1932 and to 2.69 deaths (preliminary figure) in 1933. If the 5.89 fatality rate for the early period had continued to the first of January 1934, the lives lost would have been 24,300 more than the number recorded. Similar

figures as to prevention of nonfatal accidents are not available, but it is estimated that there are about 50 nonfatal accidents to 1 fatality and that about 50,000 nonfatal accidents a year have been avoided.

While much progress has been made in the operation of mines with lessened loss of life or limb, especially in the last decade, consistently exceptional safety performance at many operations indicates that there is still much to be done toward raising the general standard. Some mines, for example, have worked 25 or more years without a fatal accident while others have worked large numbers of men a year or more without the occurrence of a lost-time accident; one surface mining operation produced upwards of 75,000,000 tons of rock without a fatality and another underground mine produced over 15,000,000 tons of ore without a fatality; in numerous instances individuals have worked 50 or more years in mines without having sustained any accident which would prevent their working at their jobs on the next regular shift. Recent statistics show that approximately 70 percent of the mines of the United States operate without fatalities, and it is probable that at least 75 percent of the nonfatal accidents occur in 25 to 30 percent of our mines. Unquestionably, some managers now know how to hold accident occurrence to a minimum, and in so doing reap a financial reward as well as performing a humanitarian service of the highest order. Observers who have given the closest study to the subject of accident prevention in mining are thoroughly convinced that accident occurrence can be reduced at least 50 percent (possibly as much as 75 percent) from present rates if the necessary effort is made.

Research in health and safety in mining is needed now more urgently than in any other period of our mining history, as mine technology is subject to rapid changes that invariably introduce new elements (often unfavorable) affecting the health and safety of the workers. Unless study and research on these problems are continuous, little understood conditions are likely to endanger further the life of the miner. Dust diseases, particularly, are increasing and require study of causes and development of methods that will eradicate, or at least materially lessen, their effects. Air conditioning, now beginning to be utilized in other [fol. 1143] industries, calls for research in its application to the comfort, health, and safety of the mine worker; very

probably its application will be found to be connected with the ventilation problem which in some form or other confronts every mine.

Knowledge of how to avoid the special hazards of the mine is not in itself enough; special efforts must be taken to make this information effective by constant education and reeducation of the operator and mine laborer. The ordinary mine worker reads but little and remains in ignorance of surrounding risks unless some central educational agency, capable of successfully reaching into hundrers of widely scattered mining camps throughout the country, is kept functioning. Education is also needed to promote closer correlation of State laws and regulations on mine safety, as well as to point out any inadequacies in present codes.

The need for accident and health work in mines is urgent and ever pressing. The responsibility for leadership in the effort to reduce unnecessary deaths and suffering rests on the Federal Government. Neither depression nor prosperity can change the need or the responsibility; and an aggressive, effective long-time mine safety program must function continuously, especially in maintaining frequent contacts with the mine worker. It is the judgment of the committee that reduction of field safety and health work in mining by the Federal Government is false economy threatening the entire mine safety program which must not be allowed to fail.

[fol. 1144] D. No. 44

United States Department of Interior

National Bituminous Coal Commission, Washington, D. C.

General Order No. 6

An Order Deferring the Filing of Reports by Producers

Pursuant to authority contained in an Act of Congress entitled "Bituminous Coal Conservation Act of 1935", it is hereby ordered by the Commission in regular meeting assembled, as follows:

1. That the reporting of spot orders to District Boards and other agencies and the filing with them of copies of

contracts for the sale of coal, invoices, credit memoranda and other information as provided by the Bituminous Coal Conservation Act of 1935 shall be deferred until this Commission shall have prescribed and promulgated rules and regulations to effectuate the requirements that such records shall be held as the confidential records of the producer filing such information.

Dated this 7th day of November, 1935.

National Bituminous Coal Commission, by C. F. Hosford, Jr., Chairman; George E. Acret, Walter H. Maloney, C. E. Smith, Percy Tetlow, Commissioners. (Seal.)

[fol. 1145] DEFT. EX. 45

(Copy)

Extract from Minutes of Meeting, District Board of District 7, Bituminous Coal Conservation Act of 1935. Held at Washington Hotel, Washington, D. C., at 4 P. M., November 5th, 1935

On motion by Mr. Tams, seconded by Mr. Caperton, it was unanimously

Resolved—That in the By-Laws of this District Board, which will shortly be submitted to the Bituminous Coal Commission for its approval, there be incorporated a provision for the establishment, at the earliest date practicable, and for the maintenance of a statistical bureau, as authorized in subsection (a) of Section 4, "Part II—Marketing" —of the Bituminous Coal Conservation Act of 1935;

Further Resolved—That said statistical bureau shall be under the management of a Director, who shall have no financial interest in the industry and shall not be in the employ of any coal producer;

Further Resolved—That the reports of spot orders, copies of contracts for the sale of coal, copies of invoices, copies of credit memoranda, and such other information, as provided in said subsection (a) shall be filed by Code Members of District 7 with said statistical bureau in lieu of the filing thereof with this District Board; the said records

shall not be available for inspection by the District Board nor any member thereof.

Further Resolved—That the headquarters of the District Board and of the aforesaid statistical bureau be located in the State of West Virginia, the location to be selected at an early date.

Certified to be a true and correct copy of an extract from the minutes of a meeting of the Bituminous Coal Producers Board for District No. 7, held Nov. 5, 1935.

Wm. G. Caperton, Secretary.

At a meeting held in Washington this date, the National Bituminous Coal Commission duly considered the foregoing and does hereby approve the same with the exception of the last paragraph referring to the location of the headquarters of the aforesaid District Board and of the aforesaid Statistical Bureau, regarding which action is held in abeyance.

National Bituminous Coal Commission, by C. F. Hosford, Jr., Chairman.

November 14, 1935.

Defendant's Exhibit No. 46

W. C. R. 871

PRODUCTION OF BITUMINOUS COAL, 1920 TO 1933, IN THOUSANDS OF NET TONS
(Prepared from operators' reports to the United States Bureau of Mines - Exclusive of wages mines producing less than 1,000 tons annually)

Code Authority Districts	1920		1921		1922		1923		1924		1925		1926	
	Thousands of net tons	Percentage of total	Thousands of net tons	Percentage of total	Thousands of net tons	Percentage of total	Thousands of net tons	Percentage of total	Thousands of net tons	Percentage of total	Thousands of net tons	Percentage of total	Thousands of net tons	Percentage of total
DIVISION NO. I														
Eastern Sub-Division:														
Central Pennsylvania 1/	60,584	10.74	49,073	10.12	38,479	9.19	56,349	10.00	43,246	8.94	45,376	8.72	49,872	8.70
Somerset 2/	7,433	1.32	5,840	1.40	6,117	1.46	5,718	1.01	5,647	1.17	6,753	1.30	7,142	1.25
Maryland-Upper Potomac 3/	6,843	1.11	5,983	.78	5,315	.55	3,775	.67	3,139	.65	4,139	.80	4,622	.80
Total, Eastern Sub-Division	74,860	13.17	60,906	12.24	49,911	11.80	65,842	11.68	52,032	10.76	56,268	10.82	61,632	10.75
Western Pennsylvania Sub-Division 4/	100,041	17.74	68,142	16.38	67,106	16.02	109,580	19.45	81,743	16.90	84,799	16.31	96,028	16.75
Ohio Sub-Division:														
Ohio - all	45,276	8.03	31,943	7.68	26,649	6.36	40,414	7.18	30,473	6.30	28,034	5.39	27,872	4.86
Panhandle of West Virginia 5/	4,341	.77	4,078	.98	4,464	1.07	6,208	1.10	5,406	1.12	5,898	1.13	6,305	1.10
Michigan - all	1,489	.26	1,146	.27	889	.21	1,178	.21	831	.17	826	.16	967	.18
Total, Ohio Sub-Division	51,106	9.06	37,167	8.93	32,002	7.64	47,800	8.49	36,710	7.59	34,758	6.68	35,144	6.08
Northern West Virginia 6/	21,839	4.08	16,823	3.90	16,594	3.96	31,022	4.31	22,823	4.78	26,668	5.13	34,522	6.02
Southern Low Volatile 7/	13,778	2.99	29,134	7.00	35,098	8.38	37,380	6.64	39,628	8.19	46,884	9.08	53,579	9.34
Southern High Volatile 8/	66,625	11.82	55,997	13.46	64,939	15.50	81,508	14.48	83,905	17.36	101,470	19.51	113,710	19.83
Western Kentucky 9/	11,037	1.96	8,518	2.07	13,738	3.28	10,890	1.93	9,088	1.88	12,147	2.34	16,464	2.70
GRAND TOTAL - DIVISION NO. I	359,882	63.82	286,177	63.96	279,880	66.82	385,191	68.48	329,953	67.83	363,020	69.81	420,856	73.37
DIVISION NO. II														
Illinois Sub-Division	88,631	15.72	69,603	16.74	58,378	13.94	78,852	14.07	68,323	14.13	66,909	12.86	69,367	12.10
Indiana Sub-Division	29,091	5.16	20,319	4.88	18,950	4.52	26,138	4.64	21,480	4.44	21,885	4.08	23,186	4.04
Iowa Sub-Division:														
Wayne and Appanoose Counties	1,539	.27	631	.15	895	.21	952	.17	841	.17	574	.11	499	.09
Rest of State	6,236	1.11	3,900	.94	3,401	.82	4,750	.85	4,628	.96	4,141	.80	4,126	.72
Total, Iowa Sub-Division	7,775	1.38	4,531	1.09	4,296	1.03	5,702	1.02	5,469	1.13	4,715	.91	4,625	.81
GRAND TOTAL - DIVISION NO. II	125,497	22.26	94,453	22.71	81,624	19.49	111,092	19.78	95,272	19.70	93,509	17.85	97,178	16.95
DIVISION NO. III														
Alabama - all	16,140	2.86	12,569	3.00	18,229	4.35	20,420	3.62	19,130	3.95	20,005	3.85	21,001	3.66
Georgia - all	50	.01	34	.01	61	.01	76	.01	73	.02	66	.01	60	.01
Southern Tennessee 10/	1,788	.32	1,076	.26	1,333	.32	1,788	.31	936	.19	1,207	.23	1,891	.33
GRAND TOTAL - DIVISION NO. III	17,978	3.19	13,679	3.27	19,623	4.68	22,284	3.94	20,139	4.16	21,278	4.09	22,952	4.00
DIVISION NO. IV														
Southwestern Coals Sub-Division:														
Kansas - all	5,838	1.04	3,466	.83	2,776	.66	4,328	.77	4,248	.88	4,524	.87	4,416	.77
Missouri - all	5,267	.93	3,951	.86	2,849	.68	3,514	.59	2,481	.51	2,694	.52	3,009	.52
Oklahoma - High Volatile 11/	4,359	.77	3,006	.78	2,433	.58	2,995	.54	2,093	.43	1,946	.37	2,389	.41
Total, Southwestern Coals Sub-Div.	15,464	2.74	10,423	2.51	8,058	1.92	10,837	1.90	8,822	1.82	9,164	1.76	9,814	1.70
Ark.-Okla. Smokeless Sub-Division:														
Arkansas - all	2,051	.36	1,227	.29	1,086	.26	1,233	.22	1,452	.30	1,220	.24	1,499	.25
Oklahoma - Low Volatile 12/	471	.08	355	.09	358	.08	345	.06	336	.06	380	.07	514	.08
Total, Ark.-Okla. Smokeless Sub-Div.	2,522	.44	1,582	.38	1,444	.34	1,578	.28	1,788	.36	1,600	.31	1,973	.33
Texas - all	1,615	.29	972	.23	1,106	.27	1,147	.21	1,147	.24	1,009	.19	1,091	.19
GRAND TOTAL - DIVISION NO. IV	19,601	3.48	12,978	3.02	10,608	2.53	13,562	2.39	11,757	2.41	11,773	2.26	12,878	2.23
DIVISION NO. V														
Southern Col. and Northern N. Mex. 13/	12,080	2.14	8,496	2.05	9,341	2.23	9,348	1.66	9,199	1.90	9,111	1.75	9,437	1.65
Central and Southern New Mexico 14/	1,127	.20	739	.18	933	.22	1,103	.20	1,141	.24	1,049	.20	1,069	.19
Northern Colorado 15/	2,753	.49	2,349	.56	2,696	.64	2,775	.49	2,890	.60	2,707	.52	2,949	.51
Utah - all	4,003	1.86	4,079	.98	4,991	1.19	4,780	.84	4,488	.93	4,690	.90	4,374	.76
Wyoming:														
Southern 16/	5,861	1.04	4,879	1.17	4,040	.96	5,235	.93	4,640	.96	4,573	.88	4,438	.78
Northern 17/	1,762	.67	2,322	.56	1,918	.46	2,384	.42	2,117	.44	1,980	.38	2,074	.36
Total, Wyoming	9,623	1.71	7,201	1.73	5,958	1.42	7,619	1.35	6,757	1.40	6,553	1.26	6,512	1.14
Montana - all	4,404	.78	2,734	.66	2,557	.61	3,144	.56	2,905	.60	3,044	.59	2,736	.49
Washington - all	3,753	.67	2,389	.58	2,577	.62	2,986	.52	2,654	.55	2,536	.49	2,547	.45
North Dakota and South Dakota:														
North Dakota - all	908	.16	865	.21	1,266	.30	1,337	.24	1,201	.25	1,324	.26	1,370	.24
South Dakota - all	13	.00	8	.00	8	.00	10	.00	12	.00	15	.00	15	.00
Total, No. Dakota and So. Dakota	921	.16	873	.21	1,274	.30	1,347	.24	1,213	.25	1,339	.26	1,385	.24
All Other Western States 18/	154	.03	136	.03	75	.02	80	.00	17	.00	13	.00	39	.00
GRAND TOTAL - DIVISION NO. V	38,816	7.15	31,036	6.98	31,549	7.54	34,964	6.23	31,874	6.57	31,099	5.97	31,139	5.51
Alaska - all	61	.01	77	.02	79	.02	120	.02	100	.02	83	.02	87	.02
UNITED STATES	563,517	100.00	436,000	100.00	416,888	100.00	563,423	100.00	485,647	100.00	520,053	100.00	573,357	100.00

1/Includes U. S. Coal Commission Fields No. 6 Blossburg; 7 Broad Top; 9 also Central Pennsylvania.
2/Includes U. S. Coal Commission Field No. 8 Somerset.
3/Includes U. S. Coal Commission Field No. 10 Maryland-Potomac (or Maryland plus Grant, Mineral, and Tucker counties, West Virginia).
4/Includes U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4 ab Freeport; 5 Butler-Mercer.
5/Includes Brooke, Hancock, Marshall and Ohio counties in West Virginia.
6/Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Upshur, Randolph, Braxton, and Webster counties, and Nicholas County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24 also, except Clay and Kanawha counties).
7/Includes U. S. Coal Commission Fields No. 17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 32 North Carolina.
8/Includes mines in Clay and Kanawha counties in U. S. Coal Commission Field No. 24 also; 13 Mason County; 14 Putnam County; 15 Kenawha; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Clinch Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian; 40 Jellico; 41 Pentress; and northern part of No. 42, namely, mines in Anderson, Morgan, and Boone counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. (This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee).
9/Includes U. S. Coal Commission Field No. 41 Western Kentucky. R.R.
10/Includes Bledsoe, Grundy, Hamilton, Marion, Rhea, Sequatchie, Van Buren, Warren, White counties, and mines in Cumberland County on the Nashville, Chattanooga, and St. Louis
11/Includes all counties in Oklahoma except Leflore, Haskell, and Sequoyah.
12/Includes Leflore, Haskell, and Sequoyah counties.
13/Includes all counties in Colorado except those included in Northern Colorado. Also, Colfax County, New Mexico.
14/Includes all counties in New Mexico except Colfax.
15/Includes Adams, Arapahoe, Boulder, Douglas, Elbert, El Paso, Jackson, Jefferson, Larimer, and Weld counties.
16/Includes Lincoln, Sweetwater, and Uinta counties.
17/Includes all counties in Wyoming except those in Southern Wyoming.
18/Includes Arizona, California, Idaho, Nebraska, Nevada, and Oregon.

(Continued on next page)

Clipped from U. S. Bureau of Mines' Weekly Coal Report No. 871, March 24, 1934. Tables prepared by W. H. Young, L. Mann, H. O. Rogers, R. McKinney, March 24, 1934.

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PRODUCTION OF BITUMINOUS COAL, 1920 TO 1933, IN THOUSANDS OF NET TONS (Continued)
(Prepared from operators' reports to the United States Bureau of Mines - Exclusive of mines producing less than 1,000 tons annually)

Code Authority Districts	1927 Thousands of net tons	1927 Percentage of total	1928 Thousands of net tons	1928 Percentage of total	1929 Thousands of net tons	1929 Percentage of total	1930 Thousands of net tons	1930 Percentage of total	1931 Thousands of net tons	1931 Percentage of total	1932 Thousands of net tons	1932 Percentage of total	1933 (Preliminary) Thousands of net tons	1933 (Preliminary) Percentage of total
DIVISION NO. I														
Eastern Sub-Division:														
Central Pennsylvania 1/	43,345	8.37	40,577	8.10	43,686	8.20	39,409	8.43	34,098	8.92	28,051	9.07	29,367	8.66
Somerset 2/	7,157	1.38	6,651	1.33	6,340	1.19	5,950	1.27	5,406	1.42	3,547	1.15	5,738	1.75
Maryland-Upper Potomac 3/	4,329	.84	3,950	.79	4,073	.76	3,507	.75	2,953	.77	2,174	.70		
Total, Eastern Sub-Division	54,828	10.59	51,178	10.22	54,099	10.15	48,866	10.45	42,457	11.11	33,772	10.90	35,105	10.41
Western Pennsylvania Sub-Division 4/	82,462	15.93	83,975	16.77	93,891	17.44	79,104	16.92	58,161	15.22	43,178	13.94	46,983	14.33
Ohio Sub-Division:														
Ohio - all	15,800	3.05	15,641	3.13	23,689	4.43	22,552	4.83	20,411	5.34	13,910	4.49	23,227	7.08
Panhandle of West Virginia 5/	7,137	1.38	7,212	1.44	6,335	1.18	5,114	1.09	4,054	1.06	3,049	1.18		
Michigan - all	757	.15	617	.12	805	.15	661	.14	399	.10	446	.14	340	.11
Total, Ohio Sub-Division	23,694	4.58	23,470	4.69	30,829	5.76	28,327	6.06	24,864	6.50	18,901	6.61	27,567	7.19
Northern West Virginia 6/	35,723	6.90	30,892	6.17	30,210	5.65	25,752	5.51	20,819	5.45	16,772	5.42	18,298	5.58
Southern Low Volatile 7/	51,432	9.93	51,068	10.20	56,699	10.60	50,511	10.80	42,868	11.22	36,229	11.70	41,052	12.53
Southern High Volatile 8/	114,799	22.17	104,454	20.86	106,846	19.97	94,109	20.13	77,594	20.31	64,388	20.79	67,958	20.63
Western Kentucky 9/	21,895	4.10	16,277	3.25	14,437	2.70	10,915	2.34	8,578	2.25	9,590	3.08	7,270	2.21
GRAND TOTAL - DIVISION NO. I	384,143	74.20	361,314	72.16	386,907	72.27	337,584	72.23	275,336	72.06	223,680	71.99	238,733	72.48
DIVISION NO. II														
Illinois Sub-Division	46,648	9.05	55,948	11.17	60,658	11.34	53,732	11.49	44,303	11.59	33,474	10.81	36,110	11.01
Indiana Sub-Division	17,936	3.46	18,378	3.67	18,344	3.43	16,490	3.53	14,895	3.74	13,524	4.30	13,500	4.12
Iowa Sub-Division:														
Wayne and Appanoose Counties	338	.07	486	.10	595	.11	606	.13	564	.15	643	.21	3,230	.98
Rest of State	2,612	.50	3,198	.64	3,646	.68	3,287	.70	2,825	.74	3,219	1.04		
Total, Iowa Sub-Division	2,950	.57	3,684	.74	4,241	.79	3,893	.83	3,389	.89	3,862	1.25	3,230	.98
GRAND TOTAL - DIVISION NO. II	67,534	13.08	78,010	15.58	83,243	15.56	74,114	15.85	61,987	16.22	50,860	16.36	52,840	16.11
DIVISION NO. III														
Alabama - all	19,766	3.82	17,621	3.52	17,944	3.35	15,570	3.33	11,999	3.14	7,457	2.40	8,775	2.68
Georgia - all	77	.01	59	.01	45	.01	7	.00	21	.01	27	.01	869	.26
Southern Tennessee 10/	1,192	.23	1,219	.24	1,240	.23	1,111	.24	978	.26	821	.26		
GRAND TOTAL - DIVISION NO. III	21,035	4.06	18,899	3.77	19,229	3.59	16,688	3.57	12,998	3.40	8,305	2.67	9,644	2.94
DIVISION NO. IV														
Southwestern Coals Sub-Division:														
Kansas - all	3,444	.67	2,810	.56	2,976	.56	2,430	.52	1,987	.52	1,953	.63	5,390	1.64
Missouri - all	3,064	.59	3,732	.74	4,030	.75	3,853	.82	3,620	.95	4,070	1.31		
Oklahoma - High Volatile 11/	3,211	.62	2,784	.56	2,940	.55	2,195	.47	1,389	.36	844	.27		
Total, Southwestern Coals Sub-Div.	9,719	1.88	9,326	1.86	9,946	1.86	8,478	1.81	6,996	1.83	6,867	2.21		
Ark.-Okla. Smokeless Sub-Division:													Not possible to separate Oklahoma high and low volatile.	
Arkansas - all	1,529	.30	1,661	.33	1,695	.31	1,533	.33	1,154	.30	1,034	.34		
Oklahoma - Low Volatile 12/	627	.12	718	.14	834	.16	599	.13	519	.13	411	.13		
Total, Ark.-Okla. Smokeless Sub-Div.	2,156	.42	2,379	.47	2,529	.47	2,132	.46	1,673	.43	1,445	.47		
Texas - all	1,326	.25	1,182	.24	1,101	.21	834	.17	716	.18	636	.21	610	.19
GRAND TOTAL - DIVISION NO. IV	13,201	2.55	12,887	2.57	13,576	2.54	11,444	2.44	9,385	2.45	8,948	2.89	8,170	2.49
DIVISION NO. V														
Southern Col. and Northern N. Mex. 13/	9,133	1.77	8,615	1.72	8,179	1.53	6,350	1.36	4,645	1.22	3,677	1.18		
Central and Southern New Mexico 14/	1,085	.21	1,049	.21	1,171	.22	977	.21	785	.21	637	.21	6,371	1.94
Northern Colorado 15/	2,441	.47	2,896	.58	3,194	.60	2,833	.61	2,727	.71	2,548	.82		
Utah - all	4,782	.93	4,843	.97	5,161	.96	4,257	.91	3,350	.88	2,859	.92	2,610	.80
Wyoming:														
Southern 16/	4,595	.87	4,573	.91	4,717	.88	4,324	.92	3,567	.93	2,915	.94		
Northern 17/	2,289	.43	1,999	.40	1,988	.37	1,764	.38	1,427	.37	1,256	.41	3,985	1.21
Total, Wyoming	6,884	1.30	6,572	1.31	6,705	1.25	6,088	1.30	4,994	1.30	4,171	1.35	3,985	1.21
Montana - all	3,144	.60	3,324	.66	3,407	.64	3,022	.65	2,378	.62	2,185	.69	2,130	.65
Washington - all	2,635	.51	2,519	.50	2,521	.47	2,302	.49	1,846	.48	1,592	.51	1,460	.45
North Dakota and South Dakota:														
North Dakota - all	1,586	.29	1,690	.33	1,862	.35	1,700	.36	1,519	.40	1,740	.56	1,739	.53
South Dakota - all	12	.00	14	.00	13	.00	13	.00	8	.01	49	.02		
Total, No. Dakota and So. Dakota	1,598	.29	1,704	.33	1,875	.35	1,713	.36	1,527	.41	1,789	.58	1,739	.53
All Other Western States 18/	32	.01	27	.01	80	.00	28	.01	25	.01	23	.01	-	-
GRAND TOTAL - DIVISION NO. V	31,586	6.09	31,509	6.29	32,233	6.02	27,570	5.90	20,297	5.84	19,314	6.27	16,295	5.56
Alaska - all	104	.02	126	.03	101	.02	120	.03	106	.03	103	.03	-	-
UNITED STATES	517,763	100.00	500,745	100.00	534,989	100.00	467,526	100.00	382,089	100.00	309,710	100.00	327,940	100.00

1/Includes U. S. Coal Commission Fields No. 6 Blossburg; 7 Broad Top; 9 and Central Pennsylvania.
2/Includes U. S. Coal Commission Field No. 8 Somerset.
3/Includes U. S. Coal Commission Field No. 10 Maryland-Potomac (or Maryland plus Grant, Mineral, and Tucker counties, West Virginia).
4/Includes U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4 and Prosperity; 5 Butler-Mercer.
5/Includes Brooke, Hancock, Marshall and Ohio counties in West Virginia.
6/Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster counties, and Nicholas County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24 and, except Clay and Kanawha counties).
7/Includes U. S. Coal Commission Fields No. 17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 32 North Carolina.
8/Includes mines in Clay and Kanawha counties in U. S. Coal Commission Field No. 26 and; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Guyan Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian; 40 Jellico; 43 Pentress; and northern part of No. 42, namely, mines in Anderson, Morgan, and Roane counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. (This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee).
9/Includes U. S. Coal Commission Field No. 41 Western Kentucky.
10/Includes Bledsoe, Grundy, Hamilton, Marion, Rhea, Sequatchie, Van Buren, Warren, White counties, and mines in Cumberland County on the Nashville, Chattanooga and St. Louis R.R.
11/Includes all counties in Oklahoma except Leflore, Haskell, and Sequoyah.
12/Includes Leflore, Haskell, and Sequoyah counties.
13/Includes all counties in Colorado except those included in Northern Colorado. Also, Colfax County, New Mexico.
14/Includes all counties in New Mexico except Colfax.
15/Includes Adams, Arapahoe, Boulder, Douglas, Elbert, El Paso, Jackson, Jefferson, Larimer, and Weld counties.
16/Includes Lincoln, Sweetwater, and Uinta counties.
17/Includes all counties in Wyoming except those in Southern Wyoming.
18/Includes Arizona, California, Idaho, Nebraska, Nevada, and Oregon.

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No. W.C.B. 671

AVERAGE VALUE PER NET TON F.O.B. MINE OF BITUMINOUS COAL PRODUCED, 1923 to 1932
(Prepared from operators' reports to the United States Bureau of Mines. Exclusive of wagon mines producing less than 1,000 tons annually.)

Code Authority Districts	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
DIVISION NO. I										
Eastern Sub-Division:										
Central Pennsylvania 1/	$ 2.87	$ 2.37	$ 2.14	$ 2.14	$ 2.05	$ 1.95	$ 1.88	$ 1.78	$ 1.66	$ 1.44
Somerset 2/	2.90	1.97	1.84	1.97	1.92	1.72	1.66	1.66	1.55	1.33
Maryland-Upper Potomac 3/	2.99	2.13	1.94	2.17	2.06	1.85	1.75	1.65	1.53	1.31
Total, Eastern Sub-Division	2.88	2.31	2.08	2.13	2.03	1.93	1.85	1.76	1.63	1.38
Western Pennsylvania Sub-Division 4/	2.66	2.82	2.10	2.13	2.06	1.90	1.78	1.69	1.55	1.38
Ohio Sub-Division:										
Ohio - all	2.43	2.03	1.83	1.96	1.98	1.69	1.51	1.40	1.24	1.11
Panhandle of West Virginia 5/	2.53	2.08	1.94	1.93	1.78	1.65	1.54	1.48	1.33	1.10
Michigan - all	4.73	4.33	4.00	4.32	4.33	4.08	3.93	3.91	3.65	3.73
Total, Ohio Sub-Division	2.50	2.08	1.92	2.00	1.98	1.78	1.67	1.56	1.38	1.14
Northern West Virginia 6/	2.84	1.74	1.53	1.63	1.58	1.39	1.38	1.83	1.08	.86
Southern Low Volatile 7/	3.14	1.98	1.94	2.12	1.97	1.73	1.74	1.73	1.47	1.16
Southern High Volatile 8/	2.60	1.62	1.70	1.69	1.71	1.60	1.57	1.50	1.31	1.07
Western Kentucky 9/	2.11	1.78	1.66	1.56	1.59	1.23	1.15	1.13	1.03	.85
GRAND TOTAL - DIVISION NO. I	2.67	2.09	1.89	1.93	1.88	1.72	1.65	1.56	1.43	1.16
DIVISION NO. II										
Illinois Sub-Division	2.50	2.27	2.19	2.14	2.16	2.00	1.87	1.74	1.70	1.53
Indiana Sub-Division	2.48	2.16	2.02	1.96	2.03	1.78	1.63	1.59	1.45	1.30
Iowa Sub-Division:										
Wayne and Appanoose Counties	3.72	3.51	3.37	3.31	3.80	3.43	3.78	3.53	3.30	2.30
Rest of State	3.57	3.47	3.31	3.05	3.15	2.86	2.83	2.69	2.58	2.31
Total, Iowa Sub-Division	3.59	3.38	3.23	3.07	3.25	2.98	2.98	2.87	2.71	2.30
GRAND TOTAL - DIVISION NO. II	2.95	2.72	2.60	2.55	2.67	2.40	2.27	2.15	1.99	1.59
DIVISION NO. III										
Alabama - all	2.52	2.34	2.12	2.23	2.25	2.25	2.08	2.03	1.82	1.54
Georgia - all	4.32	3.62	3.32	2.89	3.04	3.10	3.05	2.54	2.09	1.76
Southern Tennessee 10/	2.88	2.45	2.03	2.08	2.00	1.83	1.83	1.88	1.63	1.38
GRAND TOTAL - DIVISION NO. III	2.76	2.35	2.16	2.17	2.25	2.28	2.07	2.02	1.81	1.55
DIVISION NO. IV										
Southwestern Coals Sub-Division:										
Kansas - all	3.81	3.03	2.88	2.69	2.80	2.64	2.85	2.15	1.90	1.73
Missouri - all	3.47	3.29	3.07	2.98	2.89	2.98	2.83	2.33	2.00	1.84
Oklahoma - High Volatile 11/	3.26	3.06	3.11	3.02	3.09	3.03	3.15	2.63	2.37	1.99
Total, Southwestern Coals Sub-Division	3.53	3.25	3.07	2.97	2.93	2.97	2.98	2.30	2.04	1.73
Arkansas-Oklahoma Smokeless Sub-Division:										
Arkansas - all	4.04	4.06	3.96	3.77	3.48	3.38	3.38	3.36	3.04	2.74
Oklahoma - Low Volatile 12/	3.93	3.93	3.19	3.08	2.98	2.78	2.87	2.65	2.56	2.39
Total, Arkansas-Oklahoma Smokeless Sub-Division	4.02	4.00	3.76	3.57	3.35	3.20	3.31	3.16	2.89	2.63
Texas - all	1.82	1.50	1.55	1.60	1.51	1.39	1.35	1.57	1.39	1.32
GRAND TOTAL - DIVISION NO. IV	3.39	3.18	3.02	2.95	2.83	2.69	2.78	2.38	2.15	1.85
DIVISION NO. V										
Southern Colorado and Northern New Mexico 13/	3.51	3.38	3.19	3.00	2.95	3.08	2.93	2.85	2.56	2.30
Central and Southern New Mexico 14/	3.68	3.76	3.64	3.59	3.47	3.42	3.30	3.16	3.09	2.66
Northern Colorado 15/	2.43	2.34	2.25	2.14	2.25	2.29	2.12	2.22	2.04	2.12
Utah - all	2.69	2.69	2.54	2.37	2.38	2.53	2.47	2.47	2.22	1.99
Wyoming:										
Southern 16/	2.83	2.77	2.80	2.78	2.71	2.66	2.56	2.51	2.47	2.32
Northern 17/	2.60	2.58	2.75	2.65	2.68	2.58	2.51	2.41	2.25	2.01
Total, Wyoming	2.75	2.73	2.79	2.73	2.70	2.65	2.55	2.47	2.30	2.13
Montana - all	3.07	2.96	2.99	2.96	2.78	2.87	2.88	2.80	2.61	2.66
Washington - all	3.78	3.65	3.62	3.61	3.50	3.46	3.43	3.23	3.14	2.99
North Dakota and South Dakota:										
North Dakota - all	2.37	2.06	1.85	1.74	1.70	1.66	1.70	1.63	1.48	1.26
South Dakota - all	2.51	2.25	2.03	2.01	1.98	2.05	2.06	2.02	2.11	1.77
Total, North Dakota and South Dakota	2.37	2.07	1.88	1.75	1.72	1.69	1.70	1.63	1.51	1.28
All Other Western States 18/	3.99	4.19	4.15	4.67	4.83	5.11	5.06	4.67	5.11	4.91
GRAND TOTAL - DIVISION NO. V	3.10	2.97	2.85	2.79	2.69	2.70	2.60	2.58	2.35	2.12
Alaska - all	6.30	5.62	4.89	5.86	5.85	5.85	5.85	5.85	5.85	5.00
UNITED STATES	2.68	2.80	2.04	2.06	1.99	1.86	1.78	1.70	1.54	1.31

1/ Includes U. S. Coal Commission Fields No. 6 Bloomsburg; 7 Broad Top; 9 Abo Central Pennsylvania.
2/ Includes U. S. Coal Commission Field No. 8 Somerset.
3/ Includes U. S. Coal Commission Field No. 10 Maryland-Potomac (or Maryland plus Grant, Mineral and Tucker Counties, West Virginia).
4/ Includes U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Edgwater; 4 ab Freeport; 5 Butler-Armory.
5/ Includes Brooke, Hancock, Marshall and Ohio Counties in West Virginia.
6/ Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties, and Nicholas County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24 abc, except Clay and Kanawha Counties).
7/ Includes U. S. Coal Commission Fields No. 17 Pig River; 18 Pocahontas; 19 Winding Gulf) 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 32 North Carolina. 21 Kanawha;
8/ Includes mines in Clay and Kanawha Counties in U. S. Coal Commission Field No. 24 abc; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Clinch Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian; 40 Jellico; 43 Pentress; and northern part of No. 42, namely, mines in Anderson, Morgan, and Scott Counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. (This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee).
9/ Includes U. S. Coal Commission Field No. 41 Western Kentucky.
10/ Includes Bledsoe, Grundy, Hamilton, Marion, Rhea, Sequatchie, Van Buren, Warren, White Counties, and mines in Cumberland County on the Nashville, Chattanooga, and St. Louis Railroad.
11/ Includes all counties in Oklahoma except LeFlore, Haskell, and Sequoyah.
12/ Includes LeFlore, Haskell, and Sequoyah Counties.
13/ Includes all counties in Colorado except those included in Northern Colorado. Also, Colfax County, New Mexico.
14/ Includes all counties in New Mexico except Colfax.
15/ Includes Adams, Arapahoe, Boulder, Douglas, Elbert, El Paso, Jackson, Jefferson, Larimer, and Weld Counties.
16/ Includes Lincoln, Sweetwater, and Uinta Counties.
17/ Includes all counties in Wyoming except those in Southern Wyoming.
18/ Includes Arizona, California, Idaho, Nebraska, Nevada, and Oregon.

1148

1159

No. .S. 271

TOTAL NUMBER OF MEN EMPLOYED IN BITUMINOUS COAL MINES 1923 to 1932
(Prepared from operators' reports to the United States Bureau of Mines - exclusive of wagon mines producing less than 1,000 tons annually.)

Code Authority Districts	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
DIVISION NO. I										
Eastern Sub-Division:										
Central Pennsylvania 1/	76,735	68,510	61,819	58,691	59,574	51,884	49,561	50,859	48,272	44,934
Somerset 2/	9,184	7,910	7,359	7,787	8,330	7,256	6,199	6,965	6,602	5,194
Maryland-Upper Potomac 3/	5,913	5,366	5,096	5,478	5,271	4,937	4,929	4,863	4,708	4,519
Total, Eastern Sub-Division	91,832	81,786	74,274	72,156	73,175	64,077	60,689	62,687	59,582	54,747
Western Pennsylvania Sub-Division 4/	109,062	92,902	87,630	89,321	85,795	74,274	76,014	72,326	61,852	54,404
Ohio Sub-Division:										
Ohio - all	54,555	44,229	39,658	38,547	35,543	21,371	25,399	25,574	25,085	23,280
Panhandle of West Virginia 5/	5,362	5,612	5,610	5,784	6,256	6,224	5,572	5,243	4,031	3,464
Michigan - all	1,977	1,551	1,579	1,573	1,512	1,239	1,336	1,294	1,372	940
Total, Ohio Sub-Division	61,894	51,392	46,847	45,904	43,311	28,834	32,307	32,111	30,488	27,684
Northern West Virginia 6/	31,301	25,530	26,236	28,816	29,006	25,971	22,616	22,115	19,276	15,232
Southern Low Volatile 7/	40,587	38,821	44,149	46,551	45,667	44,566	44,836	46,550	44,142	40,244
Southern High Volatile 8/	104,458	90,529	94,524	100,318	102,135	96,000	90,806	90,618	82,446	72,875
Western Kentucky 9/	16,226	15,432	15,181	15,945	18,717	17,908	15,966	13,996	11,225	10,804
GRAND TOTAL - DIVISION NO. I	455,458	396,392	388,831	399,011	397,806	351,630	343,234	340,403	309,013	275,990
DIVISION NO. II										
Illinois Sub-Division	99,714	89,363	77,823	75,870	76,970	64,266	56,725	53,603	49,685	47,597
Indiana Sub-Division	35,408	27,558	22,732	23,404	24,352	16,806	15,250	13,881	12,311	10,639
Iowa Sub-Division:										
Wayne and Appanoose Counties	3,192	3,248	2,799	2,140	2,145	1,484	1,598	1,889	1,991	1,927
Rest of State	8,256	8,853	7,368	6,729	6,596	5,481	5,697	6,012	5,906	6,159
Total, Iowa Sub-Division	11,448	12,101	10,167	8,869	8,741	6,965	7,295	7,901	7,897	8,086
GRAND TOTAL - DIVISION NO. II	146,570	129,022	110,722	108,143	110,063	88,037	79,270	75,385	69,893	66,322
DIVISION NO. III										
Alabama - all	30,035	27,956	27,097	27,345	27,615	25,708	25,208	24,393	22,973	20,443
Georgia - all	107	143	137	127	114	124	102	60	62	64
Southern Tennessee 10/	1,465	2,619	2,128	1,960	1,995	2,027	1,987	1,890	1,784	1,826
GRAND TOTAL - DIVISION NO. III	31,607	30,718	29,362	29,432	29,724	27,859	27,297	26,343	24,819	22,333
DIVISION NO. IV										
Southwestern Coals Sub-Division:										
Kansas - all	9,761	8,561	7,800	8,172	7,004	5,991	5,139	4,855	3,813	3,591
Missouri - all	6,952	5,977	5,114	5,270	6,232	5,964	5,618	5,700	5,362	5,677
Oklahoma - High Volatile 11/	6,049	5,403	4,888	4,476	4,741	4,873	4,773	4,063	3,222	1,863
Total, Southwestern Coals Sub-Division	22,762	19,941	17,802	17,918	17,977	16,828	15,530	14,618	12,397	11,131
Arkansas-Oklahoma Smokeless Sub-Division:										
Arkansas - all	3,754	3,350	3,638	3,589	3,706	4,092	4,299	4,626	4,733	4,325
Oklahoma - Low Volatile 12/	1,081	741	743	924	1,055	1,345	1,548	1,361	1,412	1,200
Total, Arkansas-Oklahoma Smokeless Sub-Division	4,835	4,091	4,381	4,513	4,761	5,437	5,847	5,987	6,145	5,525
Texas - all	2,452	2,195	2,108	1,650	1,674	1,462	1,313	1,305	1,148	699
GRAND TOTAL - DIVISION NO. IV	30,049	26,227	24,291	24,081	24,412	23,727	22,690	21,910	19,690	17,355
DIVISION NO. V										
Southern Colorado and Northern New Mexico 13/	12,593	12,354	12,238	11,532	11,241	11,357	10,799	9,612	8,566	7,118
Central and Southern New Mexico 14/	1,783	1,836	1,756	1,632	1,695	1,712	1,805	1,741	1,695	1,534
Northern Colorado 15/	3,099	2,970	2,653	2,818	2,519	2,738	2,686	2,640	2,597	2,699
Utah - all	4,381	4,330	4,441	3,545	3,339	3,352	3,458	3,504	3,268	2,842
Wyoming:										
Southern 16/	5,153	4,827	4,408	4,214	4,183	3,311	3,526	3,766	3,264	2,892
Northern 17/	2,376	2,286	1,830	1,648	1,608	1,532	1,313	1,450	1,495	1,281
Total, Wyoming	7,529	7,113	6,238	5,862	5,791	4,843	4,839	5,216	4,759	4,173
Montana - all	3,511	3,196	2,680	2,419	2,281	2,191	2,283	2,085	1,672	1,585
Washington - all	4,306	3,858	3,726	3,609	3,407	3,099	2,946	2,801	2,662	2,816
North Dakota and South Dakota:										
North Dakota - all	1,621	1,298	1,307	1,288	1,341	1,335	1,421	1,256	1,300	1,311
South Dakota - all	34	40	49	52	49	41	32	43	56	84
Total, North Dakota and South Dakota	1,655	1,338	1,356	1,340	1,390	1,376	1,453	1,301	1,356	1,395
All Other Western States 18/	93	83	42	92	96	96	81	162	143	158
GRAND TOTAL - DIVISION NO. V	38,910	37,078	35,130	32,649	31,759	30,764	30,350	29,062	26,718	24,269
Alaska - all	199	167	157	131	154	133	152	99	80	120
UNITED STATES	704,793	619,604	588,493	593,647	593,918	522,150	502,993	493,802	450,213	406,380

1/ Includes U. S. Coal Commission Fields No. 6 Blossburg; 7 Broad Top; 9 abo Central Pennsylvania.
2/ Includes U. S. Coal Commission Field No. 8 Somerset.
3/ Includes U. S. Coal Commission Field No. 10 Maryland-Potomac (or Maryland plus Grant, Mineral and Tucker Counties, West Virginia).
4/ Includes U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4 ab Freeport; 5 Butler-Mercer.
5/ Includes Brooke, Hancock, Marshall and Ohio Counties in West Virginia.
6/ Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties, and Nicholas County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24 abo, except Clay and Kanawha Counties).
7/ Includes U. S. Coal Commission Fields No. 17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 98 North Carolina.
8/ Includes mines in Clay and Kanawha Counties in U. S. Coal Commission Field No. 24 abo; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Clinch Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian; 40 Jellico; 43 Pentress; and northern part of No. 42, namely, mines in Anderson, Morgan, and Roane Counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. (This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee).
9/ Includes U. S. Coal Commission Field No. 41 Western Kentucky.
10/ Includes Bledsoe, Grundy, Hamilton, Marion, Rhea, Sequatchie, Van Buren, Warren, White Counties, and mines in Cumberland County on the Nashville, Chattanooga, and St. Louis Railroad.
11/ Includes all counties in Oklahoma except Leflore, Haskell, and Sequoyah.
12/ Includes Leflore, Haskell, and Sequoyah Counties.
13/ Includes all counties in Colorado except those included in Northern Colorado. Also, Colfax County, New Mexico.
14/ Includes all counties in New Mexico except Colfax.
15/ Includes Adams, Arapahoe, Boulder, Douglas, Elbert, El Paso, Jackson, Jefferson, Larimer, and Weld Counties.
16/ Includes Lincoln, Sweetwater, and Uinta Counties.
17/ Includes all counties in Wyoming except those in Southern Wyoming.
18/ Includes Arizona, California, Idaho, Nebraska, Nevada, and Oregon.

1149

1160

For N.C.A. 671

TOTAL AVERAGE DAYS WORKED IN BITUMINOUS COAL MINES, 1923 to 1932

(Prepared from operators' reports to the United States Bureau of Mines. Exclusive of wagon mines producing less than 1,000 tons annually.)

Code Authority Districts	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
DIVISION NO. I										
Eastern Sub-Division:										
Central Pennsylvania 1/	188	164	190	218	182	187	206	184	159	147
Somerset 2/	162	181	224	236	222	211	243	212	163	145
Maryland-Upper Potomac 3/	175	164	210	234	214	215	243	195	185	145
Total, Eastern Sub-Division	185	165	197	216	189	198	233	188	162	147
Western Pennsylvania Sub-Division 4/	234	193	206	232	215	239	246	208	174	160
Ohio Sub-Division:										
Ohio - all	150	143	151	159	98	173	201	189	174	127
Panhandle of West Virginia 5/	222	192	220	238	251	246	239	202	207	217
Michigan - all	228	178	186	173	188	187	217	187	96	159
Total, Ohio Sub-Division	198	169	181	189	183	188	208	191	175	139
Northern West Virginia 6/	177	150	202	235	226	200	214	190	168	167
Southern Low Volatile 7/	168	198	229	255	232	233	251	212	179	162
Southern High Volatile 8/	168	195	233	247	241	227	244	201	171	160
Western Kentucky 9/	127	115	152	192	235	172	177	148	130	149
GRAND TOTAL - DIVISION NO. I	185	177	205	227	231	216	233	196	170	156
DIVISION NO. II										
Illinois Sub-Division	158	148	161	178	114	156	177	156	136	112
Indiana Sub-Division	136	136	159	173	120	150	172	157	146	149
Iowa Sub-Division:										
Wayne and Appanoose Counties	146	133	97	115	72	159	149	121	120	132
Rest of State	154	172	175	205	128	179	208	166	150	157
Total, Iowa Sub-Division	148	161	153	185	114	175	195	155	148	151
GRAND TOTAL - DIVISION NO. II	154	147	160	173	115	156	177	156	138	122
DIVISION NO. III										
Alabama - all	232	220	246	266	231	222	231	189	136	107
Georgia - all	231	248	220	253	250	220	260	71	120	204
Southern Tennessee 10/	198	130	204	238	220	206	228	168	168	147
GRAND TOTAL - DIVISION NO. III	205	213	231	255	232	211	231	168	138	130
DIVISION NO. IV										
Southwestern Coals Sub-Division:										
Kansas - all	139	151	169	158	138	188	160	186	123	130
Missouri - all	155	135	166	174	151	180	185	166	148	161
Oklahoma - High Volatile 11/	138	147	151	147	101	174	147	151	119	126
Total, Southwestern Coals Sub-Division	151	140	161	170	138	180	177	169	130	145
Arkansas - Oklahoma Smokeless Sub-Division:										
Arkansas - all	97	134	112	135	137	146	146	115	95	98
Oklahoma - Low Volatile 12/	117	105	169	163	175	158	151	133	105	118
Total, Arkansas-Oklahoma Smokeless Sub Division	102	123	151	151	156	157	147	119	97	96
Texas - all	178	166	190	195	208	203	212	161	130	152
GRAND TOTAL - DIVISION NO. IV	138	140	159	166	159	159	178	143	120	130
DIVISION NO. V										
Southern Colorado and Northern New Mexico 13/	177	178	198	211	210	198	180	157	128	117
Central and Southern New Mexico 14/	233	220	217	245	238	212	232	201	166	135
Northern Colorado 15/	184	189	188	198	183	209	219	196	193	191
Utah - all	160	162	179	186	209	191	211	166	140	176
Wyoming:										
Southern 16/	204	186	185	179	184	231	246	200	166	155
Northern 17/	166	153	161	165	200	178	168	157	127	130
Total, Wyoming	192	175	178	181	198	213	230	188	156	150
Montana - all	179	173	172	162	197	191	189	172	153	135
Washington - all	213	202	193	196	210	220	227	205	170	161
North Dakota and South Dakota:										
North Dakota - all	182	165	153	162	168	177	192	180	166	186
South Dakota - all	182	136	153	147	185	188	187	109	147	186
Total, North Dakota and South Dakota	181	164	153	161	167	175	190	178	163	183
All Other Western States 18/	206	186	174	103	204	181	185	98	91	68
GRAND TOTAL - DIVISION NO. V	185	182	186	196	203	200	204	177	149	150
Alaska - all	220	227	243	221	229	228	174	234	277	189
UNITED STATES	179	171	195	215	191	203	219	187	160	146

1/ Includes U. S. Coal Commission Fields No. 6 Bloesburg; 7 Broad Top; 9 also Central Pennsylvania.
2/ Includes U. S. Coal Commission Field No. 8 Somerset.
3/ Includes U. S. Coal Commission Field No. 10 Maryland-Potomac (or Maryland plus Grant, Mineral and Tucker Counties, West Virginia).
4/ Includes U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4 also Freeport; 5 Butler-Mercer.
5/ Includes Brooke, Hancock, Marshall and Ohio Counties in West Virginia.
6/ Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties, and Nicholas County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24 also, except Clay and Kanawha Counties).
7/ Includes U. S. Coal Commission Fields No. 17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 27 Virginia Anthracite; 28 Richmond Basin; 92 North Carolina.
8/ Includes mines in Clay and Kanawha Counties in U. S. Coal Commission Field No. 24 also; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southeastern Virginia; 26 Clinch Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian; 40 Jellico; 43 Pentress; and northern part of No. 42, namely, mines in Anderson, Morgan, and Roane Counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. (This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee).
9/ Includes U. S. Coal Commission Field No. 41 Western Kentucky.
10/ Includes Bledsoe, Grundy, Hamilton, Marion, Rhea, Sequatchie, Van Buren, Warren, White Counties, and mines in Cumberland County on the Nashville, Chattanooga, and St. Louis Railroad.
11/ Includes all counties in Oklahoma except Leflore, Haskell, and Sequoyah.
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13/ Includes all counties in Colorado except those included in Northern Colorado. Also, Colfax County, New Mexico.
14/ Includes all counties in New Mexico except Colfax.
15/ Includes Adams, Arapahoe, Boulder, Douglas, Elbert, El Paso, Jackson, Jefferson, Larimer, and Weld Counties.
16/ Includes Lincoln, Sweetwater, and Uinta Counties.
17/ Includes all counties in Wyoming except those in Southern Wyoming.
18/ Includes Arizona, California, Idaho, Nebraska, Nevada, and Oregon.

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No. W.O.R. 571 OUTPUT PER MAN PER DAY IN BITUMINOUS COAL MINES, 1923 to 1932, IN NET TONS
(Prepared from operators' reports to the United States Bureau of Mines. Exclusive of wagon mines producing less than 1,000 tons annually.)

Code Authority Districts	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932a/
DIVISION NO. I										
Eastern Sub-Division:										
Central Pennsylvania 1/	3.90	3.86	3.86	4.00	3.99	4.17	4.30	4.22	4.43	4.85
Somerset 2/	3.83	3.95	4.10	3.89	3.87	4.35	4.21	4.03	4.48	4.71
Maryland-Upper Potomac 3/	3.65	3.56	3.49	3.63	3.77	3.78	3.90	3.70	3.90	3.85
Total, Eastern Sub-Division	3.88	3.85	3.89	3.96	3.96	4.16	4.21	4.16	4.34	4.71
Western Pennsylvania Sub-Division 4/	4.89	4.56	4.71	4.64	4.46	4.72	5.00	5.07	5.40	4.96
Ohio Sub-Division:										
Ohio - all	4.96	4.82	4.67	4.56	4.52	4.88	4.64	4.67	4.68	4.71
Panhandle of West Virginia 5/	5.21	5.02	4.76	4.59	4.54	4.70	4.76	4.82	4.85	4.86
Michigan - all	2.67	3.00	2.75	2.55	2.67	2.67	2.77	2.73	2.74	2.98
Total, Ohio Sub-Division	4.83	4.78	4.61	4.49	4.43	4.31	4.58	4.62	4.65	4.67
Northern West Virginia 6/	5.39	5.80	5.04	5.10	5.45	5.96	6.11	6.12	6.42	6.58
Southern Low Volatile 7/	5.46	5.16	4.63	4.51	4.85	4.92	4.84	5.13	5.42	5.54
Southern High Volatile 8/	4.66	4.75	4.60	4.59	4.67	4.80	4.83	5.15	5.50	5.53
Western Kentucky 9/	5.88	5.06	5.27	5.04	4.83	5.28	5.10	5.85	5.88	5.98
GRAND TOTAL - DIVISION NO. I	4.76	4.64	4.56	4.51	4.58	4.76	4.84	5.02	5.24	5.17
DIVISION NO. II										
Illinois Sub-Division	5.02	5.16	5.33	5.31	5.36	5.57	6.06	6.42	6.54	6.30
Indiana Sub-Division	5.43	5.75	5.89	5.72	6.13	6.51	7.00	7.56	7.95	8.65
Iowa Sub-Division:										
Wayne and Appanoose Counties	2.04	1.94	2.11	2.03	2.19	2.06	2.45	2.65	2.36	2.53
Rest of State	2.86	3.05	3.22	2.99	3.10	3.26	3.08	3.30	3.20	3.33
Total, Iowa Sub-Division	2.75	2.80	3.02	2.85	2.96	3.02	2.98	3.18	3.02	3.17
GRAND TOTAL - DIVISION NO. II	4.91	5.03	5.24	5.19	5.35	5.52	5.92	6.29	6.39	6.28
DIVISION NO. III										
Alabama - all	2.93	3.11	3.00	2.89	3.10	3.09	3.08	3.38	3.84	3.60
Georgia - all	1.96	2.11	2.20	1.86	2.49	1.68	1.68	1.86	1.93	2.04
Southern Tennessee 10/	2.64	2.55	2.78	2.79	2.72	2.92	2.73	3.16	3.27	3.06
GRAND TOTAL - DIVISION NO. III	2.90	3.08	2.98	2.88	3.07	3.07	3.05	3.36	3.78	3.54
DIVISION NO. IV										
Southwestern Coals Sub-Division:										
Kansas - all	3.19	3.29	3.44	3.43	3.57	3.68	3.63	3.96	4.24	4.19
Missouri - all	3.07	3.08	3.18	3.27	3.26	3.47	3.87	4.07	4.75	4.45
Oklahoma - High Volatile 11/	3.03	3.05	2.63	2.79	3.37	3.29	3.30	3.53	3.62	3.60
Total, Southwestern Coals Sub-Division	3.11	3.17	3.15	3.23	3.40	3.47	3.63	3.88	4.33	4.25
Arkansas - Oklahoma Smokeless Sub-Division:										
Arkansas - all	3.39	3.24	2.99	3.00	3.05	2.79	2.70	2.87	2.58	2.61
Oklahoma - Low Volatile 12/	2.75	3.03	3.12	3.41	3.28	3.55	3.46	3.35	3.51	3.06
Total, Arkansas-Oklahoma Smokeless Sub-Division	3.21	3.21	3.02	3.10	3.11	2.98	2.93	2.99	2.83	2.72
Texas - all	2.72	3.16	3.19	3.39	3.02	3.99	3.95	3.43	4.46	6.00
GRAND TOTAL - DIVISION NO. IV	3.08	3.17	3.14	3.20	3.39	3.43	3.49	3.65	3.96	3.97
DIVISION NO. V										
Southern Colorado and Northern New Mexico 13/	4.21	4.18	3.88	3.89	3.87	3.95	4.21	4.20	4.43	4.41
Central and Southern New Mexico 14/	2.66	2.81	2.75	2.67	2.69	2.88	2.80	2.79	2.75	2.86
Northern Colorado 15/	4.93	5.16	5.42	5.29	5.31	5.06	5.43	5.42	5.45	4.95
Utah - all	6.75	5.70	5.90	6.65	6.84	7.57	7.09	7.23	7.34	5.69
Wyoming:										
Southern 16/	4.97	5.16	5.60	5.87	5.86	5.99	5.44	5.74	6.87	6.51
Northern 17/	5.91	6.05	6.71	6.83	6.94	7.33	8.06	7.74	7.49	7.09
Total, Wyoming	5.23	5.41	5.90	6.15	6.18	6.34	6.02	6.20	6.83	6.65
Montana - all	5.00	5.26	6.64	7.14	6.99	7.93	7.90	8.45	9.27	9.64
Washington - all	3.18	3.41	3.52	3.62	3.68	3.70	3.77	4.01	4.09	3.51
North Dakota and South Dakota:										
North Dakota - all	4.60	5.62	6.61	6.56	6.78	7.00	6.84	7.50	7.04	7.12
South Dakota - all	2.50	2.18	2.06	2.19	2.04	2.66	3.17	2.73	3.86	4.65
Total, North Dakota and South Dakota	4.57	5.53	6.46	6.43	6.65	6.90	6.78	7.41	6.94	7.02
All Other Western States 18/	1.05	1.31	1.73	2.01	1.66	1.58	2.01	1.85	1.88	1.66
GRAND TOTAL - DIVISION NO. V	4.57	4.62	4.76	4.84	4.90	5.12	5.22	5.37	5.62	5.31
Alaska - all	2.74	2.08	2.17	3.02	2.96	4.23	3.81	4.13	4.78	4.53
UNITED STATES	4.47	4.56	4.52	4.50	4.55	4.73	4.85	5.06	5.30	5.22

a/ Based upon (1) the "reported" number of man-shifts where the operator keeps a record thereof; otherwise upon (2) the "calculated" number of man-shifts obtained by multiplying the average number of men employed underground and on the surface at each mine by the number of days worked by each group, respectively. Using a "calculated" method throughout the average output per man per day for the country as a whole was 5.33, a figure strictly comparable with those published in previous years.

1/ Includes U. S. Coal Commission Fields No. 6 Bloosburg; 7 Broad Top; 9 abc Central Pennsylvania.
2/ Includes U. S. Coal Commission Field No. 8 Somerset.
3/ Includes U. S. Coal Commission Field No. 10 Maryland-Potomac (or Maryland plus Grant, Mineral and Tucker Counties, West Virginia).
4/ Includes U. S. Coal Commission Fields No. 1 Pittsburgh; 2 Connellsville; 3 Westmoreland-Ligonier; 4 ab Freeport; 5 Butler-Mercer.
5/ Includes Brooke, Hancock, Marshall and Ohio Counties in West Virginia.
6/ Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties, and Nicholas County on Baltimore and Ohio Railroad (or U. S. Coal Commission Fields No. 11 Fairmont and No. 24 abc, except Clay and Kanawha Counties).
7/ Includes U.S.Coal Commission Fields No.17 Tug River; 18 Pocahontas; 19 Winding Gulf; 20 New River; 23 Virginia Anthracite; 28 Richmond Basin; 92 North Carolina.
8/ Includes mines in Clay and Kanawha Counties in U.S.Coal Commission Field No. 24 abc; 13 Mason County; 14 Putnam County; 15 Kenova; 16 Thacker; 21 Kanawha; 22 Coal River; 23 Logan; 25 Southwestern Virginia; 26 Clinch Valley; 36 Northeastern Kentucky; 37 Hazard; 38 Harlan; 39 Southern Appalachian; 40 Jellico; 43 Pemtreas; and northern part of No. 42, namely, mines in Anderson, Morgan, and Roane Counties and Cumberland County except on the Nashville, Chattanooga and St. Louis Railroad. (This includes all high volatile districts of Southern West Virginia, Eastern Kentucky, Virginia, and Northern Tennessee).
9/ Includes U. S. Coal Commission Field No. 41 Western Kentucky.
10/ Includes Bledsoe, Grundy, Hamilton, Marion, Rhea, Sequatchie, Van Buren, Warren, White Counties, and mines in Cumberland County on the Nashville-Chattanooga, and St. Louis Railroad.
11/ Includes all counties in Oklahoma except Leflore, Haskell, and Sequoyah.
12/ Includes Leflore, Haskell, and Sequoyah Counties.
13/ Includes all counties in Colorado except those included in Northern Colorado. Also, Colfax County, New Mexico.
14/ Includes all counties in New Mexico except Colfax.
15/ Includes Adams, Arapahoe, Boulder, Douglas, Elbert, El Paso, Jackson, Jefferson, Larimer, and Weld Counties.
16/ Includes Lincoln, Sweetwater, and Uinta Counties.
17/ Includes all counties in Wyoming except those in Southern Wyoming.
18/ Includes Arizona, California, Idaho, Nebraska, Nevada, and Oregon.

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[fol. 1152]

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D. No. 47

Carter Coal Company

Condensed Statement of Income Account by Years

1923 to 1934, Inclusive

Particulars	Operations Under the Consolidation Coal Company Management										Operations under Carter Management			Operations under Carter Management
	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	2½ Months ended March 15 1933	9½ Months ended December 31, 1933	1933 combined	1934
Production in Net Tons	685,904	812,780	1,255,899	1,596,314	1,773,223	1,872,492	1,963,771	1,921,215	1,668,744	807,625	174,008	1,344,917	1,518,925	2,126,046
Average Mine Realization*	$2,261,538	$1,623,624	$2,432,951	$3,299,135	$3,646,842	$3,450,901	$3,545,890	$3,393,577	$2,362,534	$942,629	$185,647	$1,564,833	$1,750,480	$3,918,266
Per Ton Produced	($3.297)	($1.998)	($1.937)	($2.067)	($2.057)	($1.843)	($1.806)	($1.766)	($1.416)	($1.167)	($1.067)	($1.164)	($1.152)	($1.843)
Cost of Production, Administrative and Selling Expenses (Exclusive of Interest Charges) Less Other Income	1,848,266	1,782,391	2,316,128	2,952,196	3,201,254	3,094,274	3,410,329	3,275,966	2,780,207	1,538,116	260,373	1,744,559	2,004,932	3,516,317
Per Ton Produced	($2.695)	($2.193)	($1.844)	($1.850)	($1.805)	($1.653)	($1.737)	($1.704)	($1.667)	($1.905)	($1.496)	($1.298)	($1.320)	($1.654)
Net profit before interest charges, provisions for Federal income taxes and direct charges to profit and loss account	$413,272	$158,767†	$116,823	$346,939	$445,588	$356,627	$135,561	$117,611	$417,673†	$595,487†	$74,726†	$179,726†	$254,452†	$401,949
Per Ton Produced	($ .602)	($ .195)†	($ .093)	($ .217)	($ .252)	($ .190)	($ .069)	($ .062)	($ .251)†	($ .738)†	($ .429)†	($ .134)†	($ .168)†	($ .189)
Deduct—Interest Charges	327,078	443,991	537,141	601,036	655,148	674,653	704,184	766,269	811,043	851,980	179,125	8,596	187,721	24,961
Per Ton Produced	($ .477)	($ .546)	($ .428)	($ .376)	($ .369)	($ .360)	($ .358)	($ .399)	($ .486)	($1.054)	($1.029)	($ .006)	($ .123)	($ .012)
Net profit before provision for Federal income taxes and direct charges to profit and loss account	$86,194	$602,758†	$420,318†	$254,097†	$209,560†	$318,026†	$568,623†	$648,658†	$1,228,716†	$1,447,467†	$253,851†	$188,322†	$442,173†	$376,988
Per Ton Produced	($ .125)	($ .741)†	($ .335)†	($ .159)†	($ .117)†	($ .170)†	($ .289)†	($ .337)†	($ .737)†	($1.792)†	($1.458)†	($ .140)†	($ .291)†	($ .177)
Deduct:														
Provision for Federal income tax	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	$53,000
Direct charges to Profit and Loss Account	.....	.....	.....	.....	$359,934	$135,096	.....	.....	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	$359,934	$135,096	.....	.....	.....	.....	.....	.....	.....	$53,000
Net Profit or Loss per Books, before Provision for Dividends	$86,194	$602,758†	$420,318†	$254,097†	$569.494†	$453,122†	$568,623†	$648,658†	$1,228,716†	$1,447,467†	$253,851†	$188,322†	$442,173†	$323,988
Per Ton Produced	($ .125)	($ .741)†	($ .335)†	($ .159)†	($ .321)†	($ .242)†	($ .289)†	($ .337)†	($ .737)†	($1.792)†	($1.458)†	($ .140†)	($ .291)†	($ .152)

† Includes Inventory Variation.
* Red in copy.

[fol. 1153] D. 48

Statement as to Carter Coal Company Contracts Made Since May 27, 1935

Since May 27, 1935, Carter Coal Company has entered into contracts for terms of one year or longer covering an aggregate of 850,750 net tone (of 2,000 lbs.), at an aggregate price F. O. B. mines of $1,004,765. The average price per ton F. O. B. mines is $1.18.

Of the aforesaid tonnages, approximately 230,000 net tons have been contracted for since August 30, 1935 (the date of enactment of the Bituminous Coal Conservation Act of 1935). These contracts all provide for delivery for a period longer than 30 days from the date of the contract, each being for a period of more than 1 year.

(Here follows Deft. Ex. 49, folio 1154.)

NET INCOME OR DEFICIT OF SPECIFIED INDUSTRIAL GROUPS, 1926-1932
(These are the same industrial groups specified in plaintiff's exhibit No. 72A.)

Defendant's Ex. 49

NOTE: 1928-1932, inclusive, are the only years for which separate figures on bituminous coal mining corporations are given in "Statistics of Income", compiled from income tax returns by Income Tax Unit of Treasury Department

In thousands of dollars
D indicates deficit

	1926	1927	1928	1929	1930	1931	1932	Net Result 1926 through 1929	Net Result 1930 through 1932
Mining and Quarrying									
Coal: Anthracite	37,714	20,303 D	5,251	2,422	8,109	1,614 D	16,697 D	10,728 D	10,202 D
Coal: Bituminous, lignite and peat			24,508 D	11,304 D	42,071 D	47,745 D	51,167 D		140,983 D
Oil and Gas	121,379	31,504 D	3,481	29,602	9,462 D	120,883 D	46,760 D	122,958	177,105 D
Manufacturing									
Woolens and worsted goods	1,233	8,730	1,080 D	10,294 D	35,327 D	31,243 D	37,191 D	1,411 D	103,761 D
Finishing and tanning leather and manufacturing leather products other than boots, shoes, etc.	12,466	24,454	10,660	3,693 D	35,525 D	36,802 D	31,364 D	43,887	103,691 D
Tires and tubes	839	36,123	16,851 D	3,170	52,241 D	16,835 D	28,180 D	23,281	97,256 D
Radios, complete or parts	no data	2,445	16,060	2,964 D	12,610 D	28,270 D	13,312 D	1/ 15,541	54,192 D
Forest products (lumber and wood products)	103,776	31,114	70,704	67,113	116,636 D	184,172 D	207,118 D	272,707	507,926 D
Construction									
Shipbuilding and repairing	no data	3,860 D	1,210 D	819 D	1,280	3,223 D	1,565 D	1/ 5,889 D	3,508 D
Transportation									
Aerial transportation	no data	179 D	724	6,489 D	19,152 D	14,610 D	6,029 D	1/ 5,944 D	39,791 D
Service									

In thousands of dollars
D indicates deficit

	1926	1927	1928	1929	1930	1931	1932	Net result 1926 through 1929	Net result 1930 through 1932
Mining and Quarrying									
Coal: Anthracite	) 37,714	) 20,303 D	5,251	2,422	8,109	1,614 D	16,697 D	) 10,728 D	10,202 D
Coal: Bituminous, lignite and peat	)	)	24,508 D	11,304 D	42,071 D	47,745 D	51,167 D	)	140,983 D
Oil and Gas	121,379	31,504 D	3,481	29,602	9,462 D	120,883 D	46,760 D	122,958	177,105 D
Manufacturing									
Woolens and worsted goods	1,233	8,730	1	10,294 D	35,327 D	31,243 D	37,191 D	1,411 D	103,761 D
Finishing and tanning leather and manufacturing leather products other than boots, shoes, etc.	12,466	24,454	10,660	3,693 D	35,525 D	36,802 D	31,364 D	43,887	103,691 D
Tires and tubes	839	36,123	16,851 D	3,170	52,241 D	16,835 D	28,180 D	23,281	97,256 D
Radios, complete or parts	no data	2,445	16,060	2,964 D	12,610 D	28,270 D	13,312 D	1/ 15,541	54,192 D
Forest products (lumber and wood products)	103,776	31,114	70,704	67,113	116,636 D	184,172 D	207,118 D	272,707	507,926 D
Construction									
Shipbuilding and repairing	no data	3,860 D	1,210 D	819 D	1,280	3,223 D	1,565 D	1/ 5,889 D	3,508 D
Transportation									
Aerial transportation	no data	179 D	724	6,489 D	19,152 D	14,610 D	6,029 D	1/ 5.944 D	39,791 D
Service									
Theaters, legitimate, vaudeville, etc.	[illegible]	[illegible]	[illegible]	499 D	4,557 D	6,134 D	20,702 D	1/ 9,481	[illegible]

1/ Since data for 1926 are not available the net result here shown is for 1927 through 1929.

By W. H. Young,
Coal Economics Division,
United States Bureau of Mines,
November 15, 1935.

[fol. 1155]

D.-50

Index Numbers of Wholesale Prices of Specified Commodities or Commodity Group
1923 = 100

	Bituminous coal average realization f.o.b. mine	Nonferrous metals	Petroleum Products	Lumber	Cotton Goods	Hides and skins	Raw materials	All commodities
1923	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924	82.1	97.6	101.1	95.8	98.1	93.7	99.1	97.4
1925	76.1	106.4	115.0	97.1	94.1	100.9	108.3	102.9
1926	76.9	104.9	121.1	96.5	85.5	85.0	101.5	99.4
1927	74.3	97.3	88.0	89.8	83.0	102.3	97.9	94.8
1928	69.4	98.6	87.2	87.3	85.8	126.3	100.6	96.1
1929	66.4	111.3	86.3	90.5	84.5	95.8	99.0	94.7
1930	63.4	86.4	74.5	82.8	72.4	77.4	85.6	85.9
1931	57.5	64.9	47.8	67.1	56.5	51.2	66.6	72.6
1932	48.9[a]	52.2	55.0	56.5	46.2	35.8	55.9	64.4
1933	50.0	62.5	49.7	68.2	60.9	57.0	57.3	65.5
1934	67.9	71.0	61.2	81.5	74.0	58.3	69.6	74.5

Source: Bituminous coal average sales realization f.o.b. mines, U. S. Bureau of Mines. Other series, Bureau of Labor Statistics, U. S. Department of Labor.

Prepared by: Bituminous Coal Unit, Division of Review, N.R.A., Under the direction of F. E. Berquist.

(Here follows tables, side folios 1156 and 1157)

[fol. 1156] D. 51

Production, value, Men Employed, Days Operated, and Output Per Man Per Day at Coal Mines in West Virginia in 1934[a]

(Exclusive of product of wagon mines producing less than 1,000 tons)

County	Net tons						Value		Number of employees				Average number of days mines operated	Average tons per man per day[b]
	Loaded at mines for shipment	Commercial sales by truck or wagon	Other sales to local trade, or used by employees, or taken by locomotives at tipple	Used at mines for power and heat	Made into coke at mines	Total quantity	Total (thousand dollars)	Average per ton	Underground	Surface: In strip pits	Surface: All others	Total		
Barbour	922,771	7,376	11,217	16		941,380	$1,331	$1.41	1,221	..	147	1,368	123	5.62
Boone	2,697,587	357	12,216	7,982		2,718,142	4,528	1.67	2,326	..	535	2,861	193	4.92
Brooke	488,813	43,104	599,990	155		1,132,062	1,990	1.76	1,031	..	224	1,255	186	4.84
Clay	706,712	1,488	14,012	17,092		739,304	1,209	1.64	617	..	148	765	228	4.25
Fayette	10,576,164	8,847	192,370	64,692	230,337	11,072,410	20,773	1.88	10,701	..	1,649	12,350	221	4.06
Gilmer	23,560	2,970	104			26,634	47	1.76	72	..	14	86	98	3.15
Grant	7,365	2,840	85	715		11,005	22	2.00	54	..	14	68	61	2.66
Greenbrier	1,684,053	21,900	18,822	14,764		1,739,539	3,008	1.73	1,583	..	221	1,804	198	4.87
Hancock		17,195	3,467	1,245		21,907	42	1.92	49	..	12	61	178	2.01
Harrison	3,009,037	114,540	18,849	859	190	3,143,475	4,627	1.47	3,059	..	434	3,493	138	6.51
Kanawha	5,709,498	33,244	73,682	15,743		5,832,167	9,386	1.61	5,261	..	928	6,189	204	4.63
Lewis		7,700	6,941			14,641	34	2.32	22	..	5	27	192	2.83
Logan	13,253,434	4,088	87,478	10,114		13,355,114	20,996	1.57	9,771	..	1,780	11,551	196	5.91
McDowell[c]	16,851,041	20,824	183,265	115,820		[c]17,170,950	31,360	1.83	15,163	34	3,651	18,848	199	4.57
Marion	6,881,995	19,228	52,055	37,281		6,990,559	10,924	1.56	5,904	2	807	6,713	180	5.78
Marshall	546,272	88,556	149,386	9,487		793,701	1,324	1.67	989	..	157	1,146	155	4.47
Mason	23,992	41,737		3,600		69,329	95	1.37	143	..	22	165	145	2.90
Mercer	3,257,215	6,463	25,455	6,003		3,295,136	5,905	1.79	2,989	..	858	3,847	210	4.07
Mineral	275,973	26,403	5,425	945		308,746	549	1.78	471	..	92	563	214	2.56
Mingo	3,199,967	1,878	27,251			3,229,096	5,101	1.58	3,153	..	621	3,774	176	4.87
Monongalia	4,850,643	81,589	23,679	790		4,956,701	6,753	1.36	4,341	..	703	5,044	179	5.49
Nicholas	60,038	10,049	554	6,799		77,440	167	2.16	146	..	42	188	134	3.06
Ohio	1,880,548	164,910	43,830	4,303		2,093,591	3,203	1.53	2,266	..	160	2,426	230	3.76
Preston	684,023	9,846	2,298	10,191	50,664	757,022	1,167	1.54	1,320	..	184	1,504	153	3.30
Putnam	352,737	5,491				358,228	533	1.49	512	..	111	623	163	3.53
[fol. 1157]														
Raleigh	12,496,955	24,635	109,535	104,239		12,735,364	24,030	1.89	11,198	..	2,038	13,236	214	4.49
Randolph	349,526	29,847	22,396	9,623		411,392	710	1.73	725	..	129	854	154	3.12
Taylor	849,385	18,578	3,797	1		871,761	1,141	1.31	882	..	100	982	166	5.35
Tucker	492,927	104	10,088	22,756		525,875	1,045	1.99	640	..	69	709	169	4.40
Upshur	169,601	7,782	126	3,785		181,294	253	1.40	206	..	46	252	128	5.61
Webster	837,638	6,152	7,650	3,884		855,324	1,536	1.80	898	..	140	1,038	216	3.81
Wyoming	1,623,007	10,043	10,375	28,001		1,671,426	3,256	1.95	1,665	..	356	2,021	198	4.17
Other counties (Braxton, Summers, and Wayne)	13,081	20,580	17			33,678	59	1.75	79	..	16	95	69	5.11
Total 1934[c]	94,775,558	860,344	1,716,415	500,885	281,191	c98,134,393	167,104	1.70	89,457	36	16,413	105,906	196	4.73
Total 1933	91,328,937	817,841	1,648,139	361,347	187,271	94,343,535	107,124	1.14	77,722	20	14,730	92,472	196	5.20

[a] The figures relate only to active mines of commercial size that produced coal in 1934. The number of such mines in West Virgnia was 764 in 1934; 733 in 1933; 726 in 1932.

Size classes of commercial mines in 1934: There were 32 mines in Class 1A (500,000 tons and over) producing 23.7 percent of the tonnage; 142 mines in Class 1B (200,000 to 500,000 tons) with 44 percent; 137 mines in Class 2 (100,000 to 200,000 tons) with 20.6 percent; 101 mines in Class 3 (50,000 to 100,000 tons) with 7.4 percent; 129 mines in Class 4 (10,000 to 50,000 tons) with 3.6 percent; 223 mines in Class 5 (less than 10,000 tons) producing 0.7 percent.

Methods of mining in 1934: The tonnage by hand was 7,725,090; shot off the solid, 1,434,586 (including 316,177 tons reported by the companies as "pillar coal," the method of mining of which differs materially from solid shooting in rooms or entries); cut by machines, 88,929,965; mined by stripping, 29,533; not specified, 15,219.

[b] Based upon (1) the "reported" number of man-shifts where the operator keeps a record thereof; otherwise upon (2) the "calculated" number of man-shifts obtained by multiplying the average number of men employed underground and on the surface at each mine by the number of days worked by the mine and tipple, respectively. Using throughout the "calculated" man-shifts as developed before the year 1932, namely the product of the total number of men employed at each mine times the tipple days, the average output per man per day was 4.68 tons in 1934, a figure which is strictly comparable with 5.61 in 1930, previously published.

[c] Includes only the McDowell County operation for one mine producing in both Tazewell County, Virginia, and McDowell County, West Virginia. All tonnage for this mine in earlier years was tabulated in McDowell County, West Virginia.

By W. H. Young and L. Mann,
Statistics Section, Coal Economics Division.

Department of the Interior,
Bureau of Mines, October 19, 1935.

[fol. 1158] D. 52
2371

Relative Rate of Growth of Coal, Oil, and Water Power

According to a special study by F. G. Tyron of the Bureau of Mines, the total supply of available energy in the form of coal, oil and natural gas, and water power in 1933 was 19,317 trillion British thermal units.

The figures are expressed in B. t. u. because some common denominator is necessary for such unlike quantities as tons of coal, barrels of oil, and cubic feet of gas. Table I summarizes the B. t. u. equivalent of each of the fuels. Water power is represented by the equivalent of the fuel necessary to perform the same work, assuming a low thermal efficiency.

It is very important to note that the figures for "domestic oil," as in earlier issues of these tables, represent the entire production of crude petroleum. They include, therefore, not only energy used in the form of fuel oil under boilers, and consequently competing more or less directly with coal, but also the energy used in the form of gasoline, kerosene, and other refined products. Even these refined products involve a measure of indirect competition with coal, for the energy market of the country is becoming more and more fluid and competitive, and a demand which cannot be met by one source of supply tends to fall back on the others. The purpose of these tables is to measure the total demand for energy.

[fol. 1158]

Table I. Annual Supply of Energy from Mineral Fuels and Water Power in the United States

(Figures represent trillions of B.t.u. Water power is represented by B.t.u. of coal necessary to produce the same amount of power.)

Year	Anthracite	Bituminous coal	Total coal	Domestic oil (total crude including that refined)	Natural gas (total production)	Imported Oil (total crude)	Total oil and gas	Total mineral fuels	Water power *a*	Grand total, including water power
1899	1,643	5,065	6,708	342	*b*240	...	582	7,291	135	7,426
1909	2,205	9,949	12,155	1,099	517	...	1,616	13,771	411	14,182
1913	2,490	12,535	15,025	1,491	626	102	2,219	17,243	588	17,831
1918	2,688	15,180	17,868	2,136	775	226	3,137	21,005	837	21,842
1920	2,437	14,899	17,336	2,658	858	637	4,153	21,489	971	22,460
1921	2,461	10,897	13,358	2,833	712	752	4,297	17,655	908	18,563
1922	1,487	11,063	12,551	3,345	820	764	4,929	17,480	1,024	18,504
1923	2,539	14,791	17,330	4,394	1,082	492	5,968	23,298	1,136	24,434
1924	2,392	12,672	15,064	4,284	1,227	467	5,978	21,042	1,167	22,209
1925	1,681	13,625	15,306	4,582	1,278	371	6,231	21,537	1,290	22,827
1926	2,297	15,022	17,319	4,625	1,411	362	6,398	23,717	1,492	25,209
1927	2,179	13,565	15,744	5,407	1,553	350	7,310	23,054	1,687	24,741
1928	2,049	13,120	15,169	5,409	1,686	479	7,574	22,743	1,942	24,685
1929	2,008	14,017	16,025	6,044	2,062	474	8,580	24,605	1,929	26,534
1930	1,887	12,249	14,136	5,388	2,089	373	7,850	21,986	1,856	23,842
1931	1,622	10,011	11,633	5,106	1,813	284	7,203	18,836	1,721	20,557
1932	1,356	8,114	9,470	4,711	1,673	268	6,652	16,122	1,900	18,022
1933	1,348	8,741	10,089	5,434	1,672	191	7,297	17,386	1,931	19,317

(*a*) The fuel equivalent for water power is calculated from the reported horse power of installed water wheels assuming a capacity factor of 20 percent for manufacturers and mines, and of 40 percent for public utilities, and assuming that the theoretical thermal equivalent of 1 H.P. hour (2,547 B.t.u.) is 7 percent of the B.t.u.'s that would have been consumed in generating 1 H.P. hour from fuels in practice. For 1920 to 1933, however, actual reports of the H.P. hours produced by water in electric utility plants have been used as published by the U. S. Geological Survey.

(*b*) Based on the amount of coal displaced by gas as estimated by the gas companies at the time.

To make comparisons easier the figures of heat units are reduced to index numbers in Table II, taking the year 1918 as 100.

[fol. 1159]

Table II. Relative Rate of Growth of Coal, Oil and Water Power in the United States

(The figures for the year 1918 are represented by the number 100, and the figures for all other years are expressed as a percentage of the 1918 rate.)

Year	Anthracite	Bituminous coal	Total coal	Domestic oil (total crude including that refined)	Natural gas (total production)	Imported Oil (total crude) including that refined)	Total oil and gas	Total mineral fuels	Water power	Grand total including water power
1899.....	61	33	37	16	31	...	19	35	16	34
1909.....	82	66	68	51	67	(a)	52	66	49	65
1913.....	93	83	84	70	81	45	71	82	70	82
1918.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920.....	91	98	97	124	111	282	132	102	116	103
1921.....	92	72	74	132	92	333	137	84	109	85
1922.....	55	73	70	156	106	338	157	83	122	85
1923.....	94	97	97	206	140	218	191	111	136	112
1924.....	89	83	84	201	158	207	191	100	139	102
1925.....	63	90	86	215	165	164	199	103	154	105
1926.....	85	99	97	217	182	160	204	113	178	115
1927.....	81	89	88	253	201	155	233	110	202	113
1928.....	76	86	85	253	218	212	241	108	232	113
1929.....	75	92	90	283	266	210	274	117	230	121
1930.....	70	81	79	252	270	165	250	105	222	109
1931.....	60	66	65	239	234	126	230	90	206	94
1932.....	50	53	53	221	216	119	212	77	227	83
1933.....	50	57	56	252	205	90	229	82	231	87

(a) Imports negligible before 1913.

Coal remained by far the largest source of energy in 1933, contributing 52.2 percent of the total supply. The water power developed furnished only 10.0 percent of the total (though, of course, a much larger percentage of the electric power produced by central stations). Details are given in Table III.

Table III. Percent of Total B.t.u. Equivalent Contributed by the Several Mineral Fuels and Water Power in the United States

Year	Anthracite	Bituminous coal	Total coal	Domestic oil (total crude) including that refined	Natural gas (total production)	Imported oil (total crude) including that refined	Total oil and gas	Water power	Grand total
1899	22.1	68.2	90.3	4.6	3.3	...	7.9	1.8	100.0
1909	15.5	70.2	85.7	7.7	3.7	(a)	11.4	2.9	100.0
1913	14.0	70.3	84.3	8.3	3.5	0.6	12.4	3.3	100.0
1918	12.3	69.5	81.8	9.8	3.6	1.0	14.4	3.8	100.0
1920	10.9	66.3	77.2	11.8	3.8	2.9	18.5	4.3	100.0
1921	13.3	58.7	72.0	15.2	3.8	4.1	23.1	4.9	100.0
1922	8.0	59.8	67.8	18.1	4.4	4.1	26.6	5.6	100.0
1923	10.4	60.5	70.9	18.0	4.5	2.0	24.5	4.6	100.0
1924	10.8	57.0	67.8	19.3	5.5	2.1	26.9	5.3	100.0
1925	7.4	59.6	67.0	20.1	5.6	1.6	27.3	5.7	100.0
1926	9.1	59.6	68.7	18.4	5.6	1.4	25.4	5.9	100.0
1927	8.8	54.8	63.6	21.9	6.3	1.4	29.6	6.8	100.0
1928	8.3	53.2	61.5	21.9	6.8	2.0	30.7	7.8	100.0
1929	7.6	52.8	60.4	22.8	7.7	1.8	32.3	7.3	100.0
1930	7.9	51.4	59.3	22.5	8.8	1.6	32.9	7.8	100.0
1931	7.9	48.7	56.6	24.8	8.8	1.4	35.0	8.4	100.0
1932	7.5	45.0	52.5	26.1	9.3	1.5	36.9	10.6	100.0
1933	7.0	45.2	52.2	28.1	8.7	1.0	37.8	10.0	100.0
1934	7.7	46.3	54.0	26.9	8.7	1.1	36.7	9.3	100.0

(a) Less than 0.1 percent.

By F. G. Tryon, Statistics Section, Coal Division. Department of the Interior, Bureau of Mines, October 31, 1934.

[fol. 1160] D. Ex. 53

Table 1

Comparison of Average Hourly Earnings of "Outside Laborers" at Bituminous Coal Mines with Average Hourly Entrance Rates Paid Common Labor in Other Industries

Prepared in the U. S. Bureau of Labor Statistics

(The figures for the two groups are not entirely comparable. Those for bituminous coal mines represent the average earnings of all men on the rolls in the occupation of "outside laborer" including both experienced men and beginners. The figures for "other industries' represent the entrance rates for men newly hired only, and it is to be noted that "the rates of pay are increased by some employers after a stated length of service or after a certain degree of fitness for the job has been developed." See "Monthly Labor Review," 1934, p. 1452.

These figures alone are not to be regarded as indicative of weekly earnings. In any comparison of hourly rates such as those shown here, the intermittent employment characteristic of bituminous coal mining should also be kept in mind. In February, 1933, employees at bituminous coal mines reporting to the Bureau of Labor Statistics received 30.4 hours of work per week; employees in manufacturing received an average of 38.2 hours; and employees of power and light utilities, 46.5 hours. In June 1933, bituminous coal employees received 28.5 hours of work per week; manufacturing employees 42.6 hours, and power and light employees, 46.0 hours. Thus bituminous coal employees received 20 percent less work than manufacturing employees in February and 33 percent less in June. See Bureau of Labor Statistics, "Trend of Employment," March 1933, p. 15, and June 1933, p. 18).

State	Bituminous coal mines Average hourly earnings of "outside Laborers" February 1933 a	Other industries Average hourly entrance rates of common labor b July 1, 1932	July 1, 1933
Pennsylvania	33.0¢	34.6¢	33.1¢
Ohio	34.6¢	39.1¢	34.4¢
Indiana	c 54.5¢	32.9¢	36.0¢
Illinois	c 49.1¢	43.0¢	40.9¢
West Virginia	30.7¢	31.9¢	35.1¢
Kentucky	29.1¢	30.9 d	27.5¢ d
Virginia	25.1¢	24.4¢	26.6¢
Tennessee	26.1¢	20.4¢	19.6¢
Alabama	20.2¢	16.5¢	14.8¢

a Bureau of Labor Statistics, Bulletin 601, Wages and Hours of Labor in Bituminous Coal Mining, 1933.

b These figures are based upon the same data as the tables showing Average Hourly Entrance Wage Rates for Adult Male Common Labor. See Monthly Labor Review, October, 1932, pp. 916–919, October 1933, pp. 932–936. For 1934 regional figures see Monthly Labor Review, December 1934, p. 1455. Regional averages are reproduced in the Statistical Abstract, 1934, p. 303. The regional averages previously published are here broken down by individual states as far as possible.

c The coal mines in these States were mostly operating under collective wage agreements setting minimum rates for all occupations.

d Excluding returns for automobiles that distort the average.

A. F. Hinrichs, Bureau of Labor Statistics.

[fol. 1161] D. Ex. 54

Computed Total Annual Wage Payments Made by the Bituminous Coal Industry in 1923, 1929, and 1933

(A complete statistical canvass of the total wages paid in the bituminous coal-mining industry is available only for the years 1919 and 1929, when the decennial Census of Mines and Quarries was taken. It is, however, possible to compute the total wage payments of the industry with a reasonable degree of accuracy from the known (1) number of men employed, (2) average days operated by the mines, and (3) average daily earnings, as shown by the periodic sample surveys of the Bureau of Labor Statistics. Such a computation should be entirely comparable from year to year.

A check on the computation is obtained by comparing the result for 1929 with the Census for that year. The computed wage payments for 1929 amount to $588,000,000 and the actual, as reported by the Census, amounted to $574,800,072. Fifteenth Census, Mines and Quarries, 1929, p. 254.)

Year	(1) Number of men employed a	(2) Average days operated a	(3) Average daily earnings b	(4) Computed total wage payments (1) x (2) x (3)
1923	705,000	179	c $6.74	$851,000,000
1929	503,000	219	d $5.34	$588,000,000
1933	419,000	167	e $3.36	$235,000,000

(a) From annual coal reports of U. S. Bureau of Mines, quoted in Defendant's Exhibit 4A. (b) Computed from the periodic wage surveys of the Bureau of Labor Statistics. Figures are average daily earnings of all bituminous mine workers covered in the States of Illinois, Indiana, Ohio, Pennsylvania, West Virginia, Kentucky, Alabama, and (except in 1921–1922) Virginia and Tennessee. These 9 States in 1929 produced 89.9 percent of the national output of bituminous coal. In computing the grand average, the sample returns for each State have been weighted by the tonnage produced in that State during the year in question. (c) Represents wage survey of October 1921—February 1922, the nearest one to the year 1923. Were actual earnings for 1923 available, they would be somewhat higher. (d) Survey of January–March, 1929. (e) Survey of February, 1933. Wage rates were increased by the NRA code later in the year. The computed earnings are therefore less than the actual for 1933 but probably above the actual for 1932, in which year the mines worked 146 days.

By F. G. Tryon, Coal Economics Division, U. S. Bureau of Mines. November 23, 1935.

[fol. 1162]

D. Ex. 55

Number of men employed in bituminous coal mines in 1931, in specified counties, listed by the Department of Justice

(Compiled from annual coal reports of the U. S. Bureau of Mines)

State and county	Men employed in 1931	Rank of county in number employed	Rank of state in number employed	Year of first substantial production in county
Illinois	(49,685)	..	..	....
Franklin	9,933	1	3	1906
Saline	3,918	4		1903
Williamson	4,627	3		1893
Kentucky	(47,766)	..	..	....
Bell	2,399	8	4	1901
Harlan	9,932	1		1912
Hopkins	3,636	6		Before 1890
Knox	483	14		1902
Letcher	5,188	3		1913
Perry	4,774	4		1914
Pike	5,327	2		1906
Union	870	11		1902
Maryland	(3,224)	..	..	....
All counties	3,224	..	18	Before 1890
Pennsylvania	(116,726)	..	..	....
Allegheny	13,072	4	1	Before 1890
Cambria	18,005	1		Before 1890
Clearfield	5,758	8		Before 1890
Fayette	15,749	2		Before 1890
Washington	14,096	3		Before 1890
Westmoreland	13,053	5		Before 1890
Tennessee	(7,448)	..	..	....
Campbell	1,875	1	11	1895
Cumberland	77	12		1902

DEFENDANTS' EXHIBIT—Continued

State and county	Men employed in 1931	Rank of county in number employed	Rank of state in number employed	Year of first substantial production in county
West Virginia	(97,787)	..	..	....
Kanawha	5,799	5		Before 1890
Logan	10,832	4		1906
McDowell	17,719	1		Before 1890
Marion	4,797	7	2	Before 1890
Mingo	3,372	8		1897
Monongalia	4,820	6		1909
Randolph	613	23		1902
Alabama:				
All counties	22,973	..	6	Before 1890
Arkansas:				
All counties	4,733	..	14	Before 1890
[fol. 1163]				
California:				
All counties	86	..	24	Before 1890
Colorado:				
All counties	10,028	..	9	Before 1890
Georgia:				
All counties	62	..	27	Before 1890
Idaho:				
All counties	17	..	31	Before 1890
Indiana:				
All counties	12,311	..	7	Before 1890
Kansas:				
All counties	3,813	..	16	Before 1890
Oklahoma:				
All counties	4,634	..	15	Before 1890

November 19, 1935

[fol. 1164] RECITAL AS TO ORIGINAL EXHIBITS

There were further offered and received in evidence as plaintiff's Exhibits 35-A-43 physical exhibits of various kinds, sizes, and qualities of coal, which were ordered transmitted to the appellate court as original exhibits.

[fol. 1165] The following exhibits were offered in evidence, but refused, the Paintiff's counsel noting an exception:

(Here follows 2 photos, folios 1166 and 1166a)

Plaintiff's Exhibit No. 84

Official Circular

Washington, D. C., October 21, 1935.

To the Officers and Members of all
Local Unions, United Mine Workers of America:

Greeting:

During the past two and one-half years, the United Mine Workers of America has made wonderful progress, in not only protecting but advancing the best interests of the mine workers of this country. In the bituminous coal fields we have secured wage increases of a substantial nature and there have been established minimum wages which are a substantial approach to the highest minimum established in the industry. This progress augurs well for the future welfare of these standards.

In addition to the wage increases we have secured the adoption of the 7-hour work day, the increases being applied on that basis. We have established the right to checkweighmen and grievance committees for the adjustment of disputes arising under the contract. Security has likewise been provided for on the generally accepted standard basis of agreements. In our anthracite jurisdiction during this period we successfully resisted efforts of the operators to lower the wage standards of the workers in the great anthracite field.

Your organization has, in addition to these economic and industrial achievements, secured the passage of the Guffey-Snyder Coal Stabilization law. We have aided materially in the enactment of the Social Security measures, the Wagner-Connery Labor Relations law and we believe that the foundation has been established to bring about stability not only in the coal industry in particular, but in industry in general.

During this period, notwithstanding the extraordinary cost and expense of the organization, we have been able to build up substantial reserves so as to protect the accomplishments referred to herein. However, we have situations existing now in some of the bituminous sections of the country that will require the outlaying of considerable funds. These situations exist in Western Kentucky, Southern Appalachian field, and in Harlan county, Kentucky, where even the Constitution of the United States is not functioning. The mines are idle in most of these sections through failure on the part of the operators to apply the terms of the Appalachian Agreement signed September 26, 1935.

In addition to these factors we expect that we will be compelled to carry an appeal to the Supreme Court of the United States on the Guffey-Snyder law which is now being contested in the courts and which will result in considerable expenditure of funds to protect this all-important legislation. We also face the need of extraordinary funds in the organization of boards under the Guffey law and in seeing to it that they are properly functioning.

Our contract in the anthracite region expires March 31, 1936. Negotiations for a new contract will start following the adjournment of the international convention. Our financial reserves should be in such condition next spring so we may be in a position to protect and advance the best interests of the anthracite mine workers. We believe in the policy that the best time to prepare for trouble is in time of peace. We believe that the best and surest way to make progress is to be in a position to fight for progress and to have the necessary money to carry that fight to a successful conclusion.

Taking all these facts and factors into consideration, the International Executive Board of the United Mine Workers of America believes that our financial position should be strengthened by the building up of our reserves to a point as high as possible, consistent with the ability and means of our membership, and that the best interests of our membership and its continuing progress and security should be provided for.

Therefore the International Executive Board, to accomplish this laudable, necessary and vital purpose, officially decided at a meeting held October 20, 1935, to levy an assessment of one dollar per month per member to be collected for the months of November and December, 1935.

In accordance with this action, all local unions, and the officers thereof, are hereby instructed to collect an assessment from our membership of one dollar per month per member for November and December, 1935, on all those members who are required to pay dues during those months under the provisions of the international constitution. The assessment shall be collected and transmitted in the manner and way in which dues are collected and tax transmitted. In Districts where the check-off is transmitted through the District office, the same procedure shall be followed as in the payment of dues and tax. In any check-off District where difficulty may be occasioned in the collection of this assessment, the local union officers should get in touch with the District officers immediately so that the matter may be adjusted on the basis of the contract and in keeping with the provisions of this action of the International Executive Board.

District officers, under the terms of the Appalachian contract, can arrange to officially notify the operators signatory to the agreement with respect to this official action of the International Executive Board concerning the collection and payment of this assessment.

Taking into consideration the benefits received by our membership through increased wages, shorter hours and better protection and the fact that our reserves to be built up through the collection of this assessment will be insurance against endangering those benefits and will make provision for any emergency that might arise in our anthracite jurisdiction, we believe the assessment is not only justified but essential and reasonable in every degree. We believe our great membership, which is imbued with the principles of real Unionism, solidarity and cooperation, will respond to this action of the International Executive Board in a manner that will prove to the world that the Mine Workers are determined not only to protect but to advance their interests in every section of our jurisdiction.

We have laid the foundation and we propose to leave nothing undone that will hinder in any way the building of a superstructure on that foundation which will reflect greater and greater accomplishments for the mine workers of this country and those dependent upon them. The power, prestige and influence of the United Mine Workers of America, great as it is, will become greater and greater as our plans and policies develop. The payment of this assessment is an investment in your future welfare. With enthusiastic fervor and a determination to go forward, let us highly resolve to see to it that there is universal compliance with this decision of your organization.

The international officers and the International Executive Board pledge that we shall continue to do everything in our power to carry out the great principles of the United Mine Workers of America to the end that greater prosperity, greater security, justice and stability may obtain in every mining section under our jurisdiction. In this way we will contribute to the welfare, happiness and security of our own people, of the communities in which they live and will make more effective and increase the power, prestige and influence of the United Mine Workers of America.

By Direction of the International Executive Board,
JOHN L. LEWIS, President,
PHILIP MURRAY, Vice President,
THOMAS KENNEDY, Secretary-Treasurer.

Plaintiff's Exhibit No. 85

UNITED MINE WORKERS JOURNAL

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33 **NOVEMBER 1, 1935**

Good Bye, Dual Unions

No dual union in the coal mining industry ever accomplished any good for the men who work in the mines. In fact, dual unions are not organized for any good purpose. Instead, they always have but one object in view, and that is to create as much turmoil, and trouble as possible. No one can point to a single constructive accomplishment of any dual union. That is why dual unions die off so quickly. They are unable to show any good excuse for living. There is no excuse for the Progressive outfit in Illinois, and that is why that organization is gradually dying of dry rot. If it were not for a few officers and sore-heads who keep the organization alive for their own purposes the Progressive union would wither overnight and disappear with the coming of the morning sunlight. Its membership is constantly dwindling.

There also was a dual union in the Anthracite region in Pennsylvania. It ran its course, just as the Progressives are running their course in Illinois. It hadn't a Chinaman's chance to get anywhere. Neither does the Progressive outfit have a Chinaman's chance. All that either of them could hope to do was to create turmoil and trouble in the industry. And now the Anthracite dual union is dead—dead as a mackerel. It held its own funeral on October 25, when its chief leader issued a statement pronouncing the dual union dead, dead, dead. He spoke the truth when he said in his statement that there is room for but one union among the miners. He spoke from experience. It will be recalled that the Illinois Progressive leaders boasted loudly of their close affiliation with the anthracite dual union and together they would sweep the coal industry like wildfire. But the fire is now out in Pennsylvania, and all they have left in Illinois are a few coals and no more fuel. If the present rate of disintegration in Illinois continues a little longer, the Progressives will not have enough members left to supply scabs to the Harlan county non-union mines. The Progressives made an agreement with the chief pistol-toting mine guard of Harlan county, Kentucky, to send members of their organization to work in the Harlan county mines as scabs so as to prevent the United Mine Workers of America from organizing the Harlan county miners. In view of this and other disreputable things done by the Progressive dual union, it is not strange that its members are quitting the organization every day.

There is an article in this issue of the Journal telling about hundreds of members who have quit the Progressive union in Illinois, all of which is further evidence of the disintegration of that organization. It is going the way of the Anthracite dual union.

Any organization that furnishes scabs to work in non-union mines cannot hope to last long, and that is what the Progressive miners did in Harlan county.

Good bye, dual unions.

Amend the Constitution

ORGANIZED labor took a long step forward when the American Federation of Labor convention at Atlantic City adopted a resolution declaring in favor of an amendment to the Constitution of the United States that would bring that great document up to date. Under the leadership of the United Mine Workers of America and its delegates to the convention, the American labor movement placed itself on record in favor of amendment. The fight is on. Powerful forces in the country, including the so-called Liberty League, the United States Chamber of Commerce, the National Association of Manufacturers, the big banks and other great financial interests are lined up in a group in opposition to any amendment that would be in the interest of the common people. These powerful interests form a bloc that will fight hard to retain their strangle hold upon business and industry. But arrayed against them from now on will be the full strength of labor and the common people of America who are deeply dissatisfied with present conditions.

What labor wants is an amendment that will make it possible for Congress to enact laws on such subjects as minimum wages, maximum hours of labor, the right to organize, collective bargaining, old age pensions, unemployment insurance and other social security measures without the danger of such laws being declared unconstitutional by the courts. In other words, it is proposed that there shall be a new deal in this country that cannot be upset by judicial whims or bourbonism. The people want a new deal, and they propose to get it with assurance of permanency by an amendment to the Constitution.

We believe the present Constitution confers upon Congress such powers, but this position is disputed by the powerful interests, which fact leaves the question open to determination by the courts. The people should be permitted to have the kind of Constitution and government they most desire. If a majority of the people want protection for minimum wages and maximum hours of labor, social insurance and other reforms of that character they should have it. Such an amendment as is proposed by the labor movement would give them that protection.

Not long ago fifty-eight big corporation lawyers employed by the big interests solemnly declared the Wagner labor relations law unconstitutional. Of course, these lawyers possess no power or authority beyond the expression of their collective opinion, but they assume to speak with an air of finality that is amazing, to say the least. Only the United States Supreme Court has the power finally to decide upon the constitutionality of any law. President John L. Lewis says the fifty-eight corporation lawyers of the Liberty League are scabbing on the Supreme Court.

The Liberty League, the Chamber of Commerce, the Manufacturers Association and all the rest of the hard-shell crowd are crying out in holy horror that the Constitution must not be changed. They say it is such a sacred document that the foul hand of man must not touch it. They say the Constitution is the bulwark of American liberty, and that any change in it would be disastrous. It is true that the Constitution is and should continue to be the bulwark of American liberty. It is true that the Constitution is the fundamental law of the land. It is true, also, that the Constitution was adopted a hundred and fifty years ago for an entirely different country than the one we have today. Times have changed. People have changed. Industry has changed. The national viewpoint has changed. Everything has changed since a hundred and fifty years ago. The original Constitution does not conform to present day ideas, ideals or needs. It must be made to govern modern conditions, not the conditions of a century and a half ago. Liberty Leaguers and their followers say the Constitution should never be changed.

Why, bless their souls, the Constitution of the United States has already been changed and amended twenty-one times since it was first adopted, because the American people decided that it did not meet new developments and modern trends and ideas. That fact destroys their argument that the Constitution should never be changed.

The time is coming, and it is not far off, when the Constitution will be made more flexible and liberal, because this is an age of liberalism and flexibility in all things.

CIRCULATION THIS ISSUE OF THE JOURNAL 347,996

1166-A

1766

[fol. 1166b] I, Henry W. Hodges, Clerk of the United States Court of Appeals for the District of Columbia, hereby certify that the foregoing page is a true copy of Exhibit 85, Volume II, Statement of Evidence, in the case of James Walter Carter, Appellant, vs. Carter Coal Company et al., No. 6611, and Guy T. Helvering et al., Appellants, vs. James Walter Carter et al., No. 6612.

Witness my hand and the seal of said Court this 17th day of December, A. D. 1935.

Henry W. Hodges, Clerk. (Seal United States Court of Appeals for the District of Columbia.)

[fol. 1167] STIPULATION AS TO CERTAIN TESTIMONY

The following stipulation was entered into between counsel on December 10, 1935:

Counsel for plaintiff admit that witnesses for the Government officer defendants, if called, would testify that the practices described in paragraphs 2 to 10, inclusive, of subsection (i) of Part II of Section 4 of the Bituminous Coal Conservation Act of 1935 existed throughout the bituminous coal industry prior to 1933 and now exist, but are not and have not been the general practice in that industry; that the practices described in paragraphs 11 and 12 of said subsection also existed throughout the bituminous coal industry prior to 1933 and now exist (although not the general practice in that industry) except that such practices had no relation to prices determined under the Bituminous Coal Conservation Act of 1935; that they were in part caused by the competitive pressure in the bituminous coal industry, and that they have been a factor in the downward trend of prices. Counsel for the Government officer defendants admit that such witnesses would testify that similar practices existed in other industries. The witnesses for the plaintiff would testify that instances of the said practices occurred prior to 1933 but that they were not engaged in by the reputable firms in the industry and the said practices were not general. It is stipulated between counsel that it is considered as though such evidence had been given over the objection of the plaintiff (and exception duly noted) on the ground that such evidence is immaterial and irrelevant to the issue raised in this proceeding.

[fol. 1168] At the conclusion of the trial of the cause the Court delivered orally the following opinion and decision:

IN THE

Supreme Court of the District of Columbia

HOLDING AN EQUITY COURT

JAMES WALTER CARTER

v.

CARTER COAL COMPANY, *et al.*

IN EQUITY
No. 59374

OPINION OF COURT

(November 27, 1935.)

The Court (Mr. Justice Adkins): Gentlemen, permit me to express my appreciation of the very able and thorough way in which this case has been tried, and the very powerful and persuasive arguments which I have listened to for the last two days. It has been borne in on me throughout the trial that this proceeding is a very important one, and counsel on both sides have given me briefs from time to time, and I have been trying to read the briefs, and think I have read every one of them more than once, and most of the cases cited. The arguments yesterday and today I think have served to crystallize my judgment, and it would be fairer perhaps for me to give it to you orally than to take the time to write it.

I do not think the declaratory judgment act is applicable. Another statute approved on August 30, 1935, excepted from the operation of the declaratory judgment act suits "with respect to Federal taxes." I think the Congress used the word "taxes" in that act and the word "tax" in the present statute, with the same meaning.

I think the statute is severable. Section 15 certainly undertook to make it so as to the different provisions of the statute itself; and Section 3 provides that the fact that a person accepts the Code shall not prevent him from questioning the validity of any portion of the Code.

I am inclined to think after hearing all the argument that the plaintiff does raise the question as to the validity of both the price-fixing provisions and the provisions with respect to wages and hours.

Now, so far as paragraph (g) of Part III of Section 4, is concerned, that is the section which provides that when a certain percentage, two-thirds of the employers and more than a majority of the men, have agreed upon hours of labor and wages, such agreements would be binding, it seems to me that section is invalid under the case of *Schechter Corporation* v. *U. S.*, 295 U. S. 495.

In the first place, there is no standard fixed. It is merely a matter of what those gentlemen may do. I can quite agree with the Attorney General that that might be the wiser way to fix the wages and the hours of labor, but the *Schechter* case and the *Panama Refining Company,* 293 U. S. 388 case expressly held that a standard must be set up.

The *Schechter* case also held, as I understand it, that a power of this kind cannot be delegated to private individuals but may be delegated only to Government officers. At page 537 of that opinion the Court discusses the contention at some length with respect to codes of fair competition and expresses the view that Congress cannot delegate its legislative authority to a trade or an industry.

Now, it seems to me also that the Schechter case decides as a matter of law that the influence of wages paid in local commerce is indirect, that the influence of those wages upon interstate commerce is not direct, and therefore not a matter which can be controlled by the Congress although in the present case the effect of wages is very substantial upon interstate commerce.

And the Court also says, at page 550, "The authority of the federal government may not be pushed to such an extreme as to destroy the distinction which the commerce clause itself establishes between commerce among the several States, and the internal concerns of a State."

Now, the Government relies most strongly upon the price-fixing feature, and counsel upon the other side concedes that that is the strongest part of the law.

Upon consideration of all the facts, it seems to me —while the question is not free from doubt—that the power to fix prices is within the power conferred upon Congress by the commerce clause, and it is my duty to sustain that part of the statute in this particular case.

There are findings of fact which counsel have submitted which do state in some detail—the particular

facts and description of the bituminous coal industry and of the interstate commerce, in such coal. Here it is enough for me to point out a few of the facts showing the extent of the industry, the importance of it to interstate commerce, its peculiarities as distinguished from other industries or kinds of commerce, and some of the evils which have existed and which Congress is attempting to correct by providing for the fixing of the price at which bituminous coal may be sold in interstate commerce.

Bituminous coal is the source of nearly one-half of the energy used in the country. It supplies about 75 per cent of the energy used by the public utilities and in manufacturing. It is essential to the industrial life of the Nation and furnishes a great part of the fuel used for household heating.

It is of great importance to transportation itself. It furnishes about 83 per cent of the fuel used by locomotives operating on the railways. Over a period of years the amount of coal transported by the railroads has ranged from 26 per cent to 33 per cent of their total freight and has furnished from 16 per cent to 19 per cent of the total revenues of the carriers.

Bituminous coal is found in 26 states of the Union, although the great part of it today is produced in four states: Pennsylvania, Illinois, Kentucky, and West Virginia. It is transported to practically every state in the country, and the coal produced in the different states competes in market with coal produced in other states.

The production has ranged, I believe,—or the sales—from nearly 600,000,000 tons—I think about 579,000,000 tons is the highest figure—down to, apparently, at the present time, nearly 350,000,000

tons. There has apparently been some difference among counsel about the figures, but, as I understand, it is now agreed that about 25 per cent of the total production is sold in local commerce, about 50 per cent in interstate commerce, and, the remainder going to the interstate commerce carriers.

The facts with respect to the sales apparently are agreed upon. It is the practice to sell coal before it is mined. These sales of coal which go into interstate commerce are interstate commerce themselves. In many mines the coal is graded, because the different sizes are more valuable in the market than the run-of-mine coal, and the practice is before operating the mine to obtain contracts for the different kinds of coal. Sometimes it is impossible to get the contracts in advance for all of the sizes, and the mine is compelled to operate.

The unsold coal accumulates until it so clogs the mine that operations are suspended, or that coal is shipped out, consigned to the owner or his agent, in the hope that it will be sold before it reaches its destination. If not, there are heavy demurrage charges, and there are also charges due to a change in consignment. So, there is a very decided pressure to sell that coal as quickly as possible, and it is referred to as "distress coal." Sometimes it is offered for sale to a number of brokers at the same time, and so far as the purchasers know, each broker is selling different coal. The result is that that distress coal has a very great effect upon the market price and depresses it.

About three-fourths of the coal is sold upon contracts and upon contracts made in advance, while the remaining coal is sold "spot," which, I suppose,

would include the kind of sales I have just mentioned.

There are other differences which distinguish coal to some extent from other commodities. The cost of the labor is the greatest item in producing coal. It is about 60 per cent.

The closing down of a mine is a difficult and very expensive thing. The pumps must be kept going, and there are various items of supervision such as to see that the walls and ceilings do not collapse, and the result is that the expense of running the mine while it is not operating is so heavy that it is usually considered cheaper to keep the mine going, even though the price received for the coal is less than the actual cost if all items of overhead are taken into consideration.

Then, there is a very great over-capacity in the mines of the country. The mines are capable of producing a much greater amount of coal than is consumed.

During the War the demand for coal grew enormously, with the result that prices soared. Finally Congress passed legislation for the purpose of regulating the price of coal. As I recall the testimony, it was some months after the Fuel Administration began to operate before the difficulties were corrected.

After the War there were a number of strikes of some importance. I believe the evidence shows that the wage agreements had usually been made for a period of two years, and there was always likely to be some suspension at about the time of the termination of the wage agreement. Frequently it was not renewed before the expiration.

In 1919 there did occur a very serious strike. That was a general strike of the union miners. It began about November 1, 1919, and lasted for about six weeks. Some 400,000 men altogether were on strike in about 22 different states. Before that strike was over, the testimony indicates, manufacturers in some places had to close down because of the shortage of coal.

In 1920, before the effects of that strike were over, as I recall it, the Government undertook to fix the prices of coal again.

In 1920 there was legislation in the State of Indiana because of the effects of that strike. The State created a special Food and Fuel Commission. The validity of the creation of that commission was sustained in the case of *American Coal Mines* v. *Food and Fuel Commission,* 268 Fed. 563. In that decision Circuit Judge Baker said that the State had the right to regulate the prices.

Before I leave that subject, I think in 1920 or 1921 the President appointed a Coal Commission which undertook to study the difficulties between the operators and the miners.

In 1922 another suspension occurred at the expiration of the wage agreement on March 31, 1922. About 460,000 miners were out, and at one time about 73 per cent of the productive capacity of the mines was closed down.

I think that in that year legislation was passed in Ohio for the purpose of remedying the difficulty, and on September 22, 1922, Congress itself passed an act which created the office of Federal Fuel Distributor, and also appointed the United States Coal

Commission, which made an investigation, the report of which has been referred to here.

I think the evidence shows that during that suspension the price of coal increased, and there was some evidence that some buyers were unable to get the grades of coal to which they were accustomed. Some of the coal sold was, of course, impure, and there were some breakdowns on some of the locomotives on the railroads. I think that at both of those times there was a real threat of a suspension, not only of the commerce of coal itself but of the commerce which depended on the use of coal in order to move; and that that threat was overcome by the action of the President in one case and of Congress in the other.

Between 1924 and 1927 there were a number of local strikes or suspensions, and after the expiration of the Jacksonville agreement in 1927 there were still other suspensions.

Prior to 1917 the industry had grown a great deal. Even before that time, and from that time on, there had been a very great growth in Kentucky, West Virginia, and other southern states, some due to natural causes—the building of the railroads to the mines and the building up of the mines—and some due to the competitive conditions.

Between 1924 and 1927 a great many of the union mines abrogated their contracts or suspended operations and later reopened on a non-union basis. As a result, a great deal of the sales of the mines that had been union before that time went to the mines in the other states that had been non-union.

By 1927, after the expiration of the Jacksonville agreement, the testimony showed, practically all of

the territory, or the very great part of the territory, that had theretofore been union, became non-union, and thereafter some of this commerce which had gone to Kentucky and West Virginia then went back in the normal course to Pennsylvania, Illinois, and the other states.

Between 1924 and 1929 there was no decrease in the sales of coal. As I recall the sales were over 500,000,000 tons in each one of those years.

From 1917 up to about 1923, the figures showed, the business as a whole had been very profitable. There were some years when the net profits of the entire industry were in the neighborhood of $250,000,000. I do not know just what the total sales were, but perhaps in that year the wages were about $851,000,000, so the sales might have been nearly double that, or around $1,500,000,000. During this period from 1924 to 1929, when the production continued at about the same amount there were heavy losses. There were several of the years when the figures, I believe, were not obtainable, but I think that between 1924 and 1929 there was a loss in every year to the industry as a whole.

During that same period the average price at the mine decreased from $2.68 to $1.78, a decrease of 90 cents, or about 31 per cent. During the same period the total wages decreased from about $851,000,000 to $588,000,000, a decrease of about the same percentage. The number of miners decreased about 200,000. So, with the same production, this meant that the miners were working more days per year.

Also during that same period, the approximate period between 1923 and 1929, the number of mines decreased about 3,300, about 30 per cent.

The losses after 1929, of course, became heavier; and they continued to be very heavy, I think, until the year 1934, when the N. R. A. became effective.

Throughout this same period Congress made a large number of investigations—either Congress itself, through a committee, or through some body appointed by Congress, or a commission appointed by the President. I think there must have been 12 or 14 of those during the period from 1918 down to 1935, and various suggestions as to various remedies were made.

I think it is a fact that during this period from 1919 down to the adoption of N. R. A., at any rate, there were a number of things which were injurious to the commerce in coal, and to the entire commerce of the nation. Whenever a wage agreement expired there was a threat, or at least a fear, that a very substantial part, if not all, commerce might be suspended until the wage agreement should be renewed. In 1920 and 1922 these threats grew to very serious proportions. The Presidents exercised their good offices, and Congress passed a statute as a result of which investigations were made, and the suspensions ceased and commerce in coal was renewed, and the threat of interference with that commerce, and with the bulk of the commerce of the railroads, ceased, but there was that threat on each occasion. As it was, there were many interruptions to the commerce, and real obstructions to the commerce. Consumers were compelled to lay in stocks of coal. Of course, the commerce of the carriers themselves fell off. Prices increased. I think the evidence shows that certain of the carriers in 1920 paid about 25 per cent more for their contract coal and about 50 per cent more for

their spot coal than they paid during the preceding year, and it was admitted that they probably suffered less because of their great buying ability, than other consumers.

That is your situation. The question is, Has Congress the right to regulate interstate commerce in that coal because of these conditions?

It seems to me that there is a real analogy between the right of the State to regulate local commerce and the right of Congress to regulate the national commerce. Historically, we know that the States exercised that right first, and their right was sustained before Congress attempted to exert a similar right. That was true of the elevator rates, decided in *Munn* v. *Illinois,* 94 U. S., and of railroad rates, decided in *Chicago, Burlington & Quincy* v. *Iowa,* in the same volume.

It seems to me that in *Nebbia* v. *New York,* 291 U. S., 502, in this quotation which we have heard so many times, the Supreme Court was expressing that view. In the *Nebbia* case, at page 524, the Court said:

> "Thus has this Court from the early days affirmed that the power to promote the general welfare is inherent in government. Touching the matters committed to it by the Constitution, the United States possesses the power, as do the States in their sovereign capacity touching all subjects the jurisdiction of which is not surrendered to the Federal Government, as shown by the quotations above given."

In *Brooks* v. *United States,* 267 United States at 436, which counsel have discussed at great length, the Court made a similar observation, to the effect that

in that particular statute it was merely exercising police power for the benefit of the public within the fields of interstate commerce.

It seems to me the same thing was said in the Lottery case, *Champion* v. *Ames,* 188 U. S., at 321, and in *Gibbons* v. *Ogden* 9 Wheat. 197, it was discussed. Chief Justice Marshall said that when a portion of the power of the State, that is, the power to deal with some of its commerce, was surrendered to Congress, Congress had the same power with respect to that commerce that the State had, subject to the restrictions contained in the Constitution.

In the *Nebbia* case the Supreme Court was dealing with milk. Coming down to coal, there are a number of State decisions holding that coal is affected with a public interest. The earlier decisions used that expression, that the State had power to regulate an industry which was clothed with a public interest. In the later cases the Supreme Court has somewhat changed the language, and said that the question is whether the activities to be regulated so nearly touch the vital economic interests of society that the police power may be invoked to regulate those activities. *Nebbia* v. *New York,* p. 534.

I was impressed today by the fact that Judge Kenyon, while chairman of the committee of the Senate, had made a recommendation that certain legislation be passed, and that he had used the expression that coal is a public utility, and that Congress should so declare.

Counsel have referred to the case of *Jones* v. *Portland,* 245 U. S., at 224, where the Supreme Court sustained the right of the city of Portland to conduct a municipal fuel yard. The importance of that case

is that the city had no right to spend money except for a public use. The supreme court of Maine could see no difference between selling coal and hauling it over the streets to its citizens and burning the coal at a central station and sending the heat under the streets, and the Supreme Court adopted that view and used some language which points in the direction that the coal industry is one which the States have the right to regulate.

Now, coming directly to the power to regulate interstate commerce, we have had several definitions. One was read this morning, I think, from the first *Employers Liability* case, and I think it is the same definition as is given in the Recapture case, *Dayton-Goose Creek Railway* v. *United States,* 263 U. S., 478. There the Court said:

> "It was insisted in the two cases referred to and is insisted here, that the power to regulate commerce is limited to the fixing of reasonable rates and the prevention of those which are discriminatory, and that when these objects are attained, the power of regulation is exhausted. This is too narrow a view of the commerce clause. To regulate, in the sense intended, is to foster, protect, and control the commerce, with appropriate regard to the welfare of those who are immediately concerned, as well as the public at large, and to promote its growth and insure its safety."

Congress has passed legislation undertaking to deal with matters of competition, and to forbid unfair methods of competition.

Of course, the purpose of the Sherman act is to prevent the monopolization of interstate commerce.

There are various provisions in the Clayton act which prevent price discriminations. It has been held, in numerous decisions, even before the Clayton act, that the sale of goods by one competitor at less than cost in a certain place, in order to injure the business of his competitor and put the competitor out of business, is unfair competition. That was a favorite method, I think, in the days of the cut-throat competition between the large corporations which were undertaking to obtain a monopoly.

In *Board of Trade* v. *Olsen,* 262 U. S. 1, 40 it is said that the question of price dominates the trade between the States.

While, as I said at the beginning, this question is not free from doubt, nevertheless it seems to me that Congress does have the right, under all the facts that are shown with respect to the bituminous coal trade, to do what is reasonably necessary to remove obstructions to and prevent injuries to that commerce; and Congress having determined that this may be done by the fixing of the price, it seems to me that it is not for the Courts to say that that is not a reasonable way of attacking and correcting the difficulty.

The evidence shows that much of the coal is sold in interstate commerce at less than cost. There are different prices to different consumers, depending, to some extent, upon the buying power of the different consumers. Of course, the wholesale principle is always proper, I suppose, but some of those prices are secret, and the condition is one that may properly be called cut-throat competition.

There is a threat of interference with commerce in coal itself, a threat of interference with all the commerce, or that part of the commerce of the rail-

roads which depends upon coal. That threat is more or less periodical, and it seems to me that the evidence shows that it is just as real as the threat to the milk business in New York. That is, the threat that that milk business in New York might entirely cease is no more likely than that the commerce in coal might cease for a substantial period, and that the entire industry might be destroyed if some remedy were not evolved.

I must confess that I was very much impressed by the list of the different things that were said in the *Nebbia* decision, compared with the facts in this case. The opinion in the *Nebbia* case is almost an encyclopedia of the law up to that date, and there the Court concludes that the legislature need not stop at acts which will indirectly affect the price, but that if, in the opinion of the legislature, the particular industry so affects the vital economic life of the State as to make price fixing necessary, then the legislature has the right to do it.

In what I have said in sustaining the right to fix the price, I have limited it, or tried to limit it, to those things which really have to do with interstate commerce as distinguished from local commerce.

In this comparison between the *Nebbia* case and the present case these are some of the things which were relied on there:

First, the prices to the producers had fallen below the cost of production. That is true in a great many instances here.

Second, the price of milk had declined more than prices generally. I am not so sure about the decline of prices, but the evidence shows that during this period between 1925 and 1929, when the consump-

tion of coal did not decrease, but the price fell off 90 cents a ton and the industry as a whole lost money every year, most of the other industries of the country were making money during those years. Those were the profitable years before the depression. It is true that there were four or five, or perhaps as many as seven, industries that lost money during this period, or a portion of it.

Third, the situation of dairy farmers was desperate. I think that is true of the situation of many of the operators of the mines.

Fourth, milk is an essential article of diet. Coal is certainly essential for the carrying-on of our commerce and the industrial activities of the country, as well as for domestic heating.

Fifth, milk cannot be stored, and this leads to the constant accumulation of surpluses, which tends to force down prices. I might amplify a little what I have said about the storage facilities. While the Carter Company and some others have some storage facilities, I think as a whole the industry avoids storage as much as possible, for two reasons: The lump coal tends to disintegrate when it is stored, and, of course, it is a costly thing to do. The evidence indicates that sales may go from one field to another, from one mine to another, and from one State to another, on a very few cents differential in the price.

Sixth, overproduction and overcapacity. Of course, that exists in this particular industry, and is perhaps just as difficult to cope with as in the milk industry. There it depended somewhat on the life of the cows, but, as counsel has said here, the life of a coal mine is usually longer.

Seventh, the prevalence of unfair trade practices,

which lead to demoralization of prices—attempts to sell the product to large buyers at discriminatory prices, and matters of that kind. I think I have discussed that.

Eighth, the rigidity of transportation charges. Of course, that exists here.

Ninth, the failure of producers of milk to receive a reasonable return threatens sanitary regulations. I do not think that comparison is to be made here.

Tenth, the milk industry is paramount to the State, and the destruction or decline of the industry would cause serious economic loss to the people of the State. I think the destruction of this industry, of course, would cause serious economic loss to the entire country, and the destruction of it would cause a very serious interference with all commerce.

Now I come to the effect upon local commerce. I think the effect of the stipulation which has been made is to make it unnecessary for me to say anything about that. 98 per cent of the commerce of the Carter Coal Company is interstate.

There is a question in the case as to the delegation of the right to fix the prices. There was also a question raised as to the standard. The steps provided by the law are complicated. The matter is complicated, so that the steps necessarily are complicated. Without going into the details, I think there is a sufficient standard set up, and I think that the statute requires that there be action by the Bituminous Coal Commission before any price becomes effective.

It is also contended that under section (a) of Part II, "Marketing," stabilization of wages and working conditions and maximum hours of labor is inextricably tied in to the fixing of prices. I am unable

to agree with that. It is true that at the top of page 6 the sentence begins: "In order to sustain the stabilization of wages, working conditions, and maximum hours or labor, said prices shall be established so as to yield a return per net ton," and so forth; and then the statute enumerates the things which shall be taken into consideration in fixing the price. They are all items of cost, which would have to be taken into consideration in fixing the price. It does not seem to me that language does anything more than to indicate a desire on the part of Congress that wages, working conditions, and maximum hours of labor be stabilized, but that it is not an essential part of that portion of the statute, and the statute would be precisely the same if that language had been omitted.

Now, as to the due process clause, I think what is said in the *Nebbia* case answers that, at page 525:

> "The Fifth Amendment, in the field of Federal activity, and the Fourteenth, as respects state action, do not prohibit governmental regulation for the public welfare. They merely condition the exertion of the admitted power, by securing that the end shall be accomplished by methods consistent with due process. And the guaranty of due process, as has often been held, demands only that the law shall not be unreasonable, arbitrary or capricious, and that the means selected shall have a real and substantial relation to the object sought to be attained."

It seems to me that the statute complies with those requirements.

It is also contended that the purpose of the act is really not to regulate interstate commerce, but to stabilize the industry. I think it must be admitted,

from a reading of the statute itself, that Congress had in mind both purposes. If one of them is within the power of Congress—and I have already held that the regulation of interstate commerce is within its power—I understand the law to be that the expression of the other purpose, no matter how plain it is, does not invalidate the statute. That is held in *Stephenson* v. *Binford*, 287 U. S. 276. *Stephenson* v. *Binford* deals with a state statute, but it cites the case of *Ellis* v. *U. S.*, 206 U. S. 256.

Having held that that portion of the statute which undertakes to fix prices is valid, I think it follows that the tax is valid.

I think, Gentlemen, I have covered all of the questions that were raised.

Mr. Dickinson. If your Honor please, there is one question that I do not think I have heard your Honor express an opinion on, and that is sections (a) and (b) of the labor relations provisions, the ones relating to collective bargaining and those provisions.

The Court. I am unable to distinguish them from (g).

I think, in view of the doubt that I have expressed, that it would be appropriate to grant a stay similar to that which was granted by Judge Hamilton.

Mr. Robertson. The stay is to be against the company joining the code, and against the collection of any tax in excess of one and one-half per cent, which is to be paid into the registry of the Court, as Judge Hamilton ordered?

The Court. I think that would be reasonable.

Mr. Dickinson. Yes.

Mr. Whitney. Your Honor, I am not absolutely clear whether there is to be an injunction against the company's joining this code that has been promulgated by the Bituminous Coal Commission, and a copy of which is in evidence in this record. May I ask your Honor whether you enjoin the company from joining the Code, or whether you do not do so?

The Court. I do not enjoin them from accepting that Code, but I grant a stay pending appeal.

Mr. Robertson. Would it be your Honor's pleasure to have us take an exception and ask an appeal now, so as to get it in the record?

The Court. Is it necessary to make a formal notation of exception to the opinion? You have the findings of fact and conclusions which I will sign.

Mr. Robertson. Then I will content myself with just noting an appeal in open court now, for the purpose of the record, and also ask that you grant it. We are not clear whether we are under the Federal or the District practice.

[fols. 1187 & 1188] ORDER APPROVING STATEMENT OF EVIDENCE

Be it further remembered that the foregoing contains the substance of all of the evidence given on the hearing of this cause, and the opinion and decision of the Court; and each of the exceptions stated to have been taken by the attorneys for the plaintiff and the defendants were so taken and were duly allowed and noted by the Court; and in order that each and every thereof may be preserved and made of record this Statement of Evidence is duly stated, approved and signed and ordered to be made of record in the above-entitled cause this 10th day of December, 1935.

By the Court:

Jesse C. Adkins, Justice.

[fol. 1189] Clerk's certificate to foregoing transcript omitted in printing.

Endorsed on cover: File No. 40,190. District of Columbia, U. S. Court of Appeals. Term No. 636. James Walter Carter, Petitioner, vs. Carter Coal Company, George L. Carter, as Vice-President and a Director of Said Company, et al. Petition for a writ of certiorari and exhibit thereto. Filed December 16, 1935. Term No. 636, O. T., 1935.

(7240-C)

[fol. 1190] SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1935

No. 636

ORDER ALLOWING CERTIORARI—Filed December 23, 1935

The petition herein for a writ of certiorari to the United States Court of Appeals for the District of Columbia is granted. And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

[fol. 1191] SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1935

No. 651

ORDER ALLOWING CERTIORARI—Filed December 23, 1935

The petition herein for a writ of certiorari to the United States Court of Appeals for the District of Columbia is granted. And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.